XPR16H

Professional 16 Camera 4 CPU D1 H264 DVR

USER MANUAL

CAUTION

- **Please read this user manual carefully to ensure that you can use the DVR correctly and safely.**
- **We cannot guarantee all the content is correct. The contents of this manual are subject to change without notice.**
- **This DVR should be operated only from the type of power source indicated on the marking label. The voltage of the power must be verified before use. Kindly remove the cables from the power source if the DVR is not to be used for a long period of time.**
- **Do not install this DVR near heat sources such as radiators, heat registers, stoves or other DVRs that produce heat**
- **Do not install this DVR near water. Clean only with a dry cloth**
- **Do not block any ventilation openings and ensure the DVR is well ventilated.**
- **Do not power off the DVR when the DVR is operating. The correct procedure to shut down DVR is to firstly stop recording, then using the "shut down" option from the main menu follow the instructions until prompted to finally switching of the main power.**
- **This equipment is for indoor use only. Do not expose the machine to rain or a moist environment. In case any solid or liquid gets inside the machine's case, please cut off the power supply immediately, and get it checked by a qualified technician.**
- **Refer all servicing to qualified service personnel. You should repair no parts without technical aid or approval.**
- **This manual is suitable for the X4D1/X8D1/X16D1 channel digital video recorders. All examples and pictures used in the manual refer to the 16 Camera DVR.**

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1 Introduction

1.1 DVR Introduction

This DVR (Digital Video Recorder) is designed for high performance CCTV solutions. It adopts state of the art video processing chips within an embedded Linux system. The DVR provides advanced features such as H.264 compression, dual stream, high resolution VGA output, an intuitive USB mouse compatible graphical user interface and compatibility with all major smartphone platforms. The DVR's highly stable platform and powerful functions allows it to be used in banks, telecommunication, transportation, factories, warehouses and similar high-risk applications.

1.2 Main Features

COMPRESSION FORMAT

- H.264 compression for saving valuable disk space and maintaining high quality images

LIVE SURVEILLANCE

- High definition VGA output
- Hidden live view display for increased security
- Highlights basic details specific to each channel such as current recording state and detection parameters

RECORD MEDIA

- SATA hard drive compliant for faster and more efficient transfer/copying of data

BACKUP

- Supports USB 2.0 devices to backup.
- Built-in SATA DVD writer
- Remote backup option via the internet

RECORD & PLAYBACK

- Record modes: Manual, Schedule, Motion detection and Sensor alarm recording
- Recycle when HDD is full
- Resolution, frame rate and picture quality are adjustable
- 128MB for every video file packaging
- 16 audio channels available
- Two record search mode: time search and event search
- 4/8/16 screen simultaneous playback
- Delete and lock the recorded files one by one
- Remote playback in Network Client through LAN or Internet

ALARM

- 4 channel Alarm Output and 4/8/16 channel alarm input available
- Programmable schedule for motion detection and sensor alarm
- Pre-recording and post recording
- Linked recording on all channels once motion or alarm is triggered on a certain channel
- Supports linked PTZ Presets, Auto Cruise and Tracking of the corresponding channel

PTZ CONTROL

- Supports various PTZ protocols
- 128 PTZ presets and 8 auto cruise tracks
- Remote PTZ control via the Internet

SECURITY

- Customization of user rights
- Supports 1 administrator and up to additional 15 users
- Event log recording and checking

NETWORK

- TCP/IP, DHCP, PPPoE and DDNS protocol
- Supports remote viewing via internet browsers
- Dual Stream for efficient playback over the internet
- Network stream is adjustable independently to fit the network bandwidth and environment
- Supports picture snapshots and colour adjustment in remote viewing
- Remote access to time/event search, channel playback and pictures snapshots
- Remote PTZ control with presets and auto cruise
- Full remote menu setup allowing all the DVR's parameters to be changed remotely
- 3G mobile surveillance supported on Android, Blackberry, iOS (iPhone/iPad), Windows Mobile and Symbian (Nokia) platforms
- Central Management Software (CMS) allows management of multiple DVRs over the internet

2 Hardware Installation

Note: Before installing the unit, please ensure that no parts or accessories are missing.

Note: Please disconnect the power before being connected to any other DVRs. Don't hot plug in/out

2.1 Install Hard Drive & DVD Writer

2.1.1 Install Hard Drive

The XPR16H supports up to 8 SATA hard drives and 1 CD/DVD writer. For recommended hard drives please refer to "Appendix C - Compatible Devices 3".

Note: Please calculate HDD capacity according to the recording setting. Please refer to “Appendix B Calculate Recording Capacity”.

- **Step 1:** Unscrew and open the DVR’s top cover
- **Step 2:** Connect the power and data cables. Place the hard disk onto the bottom case as below.

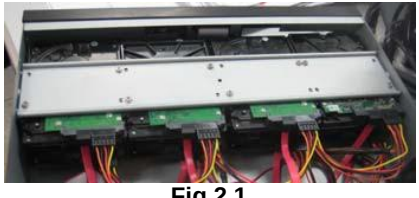


Fig 2.1

- **Step 3:** Screw the hard disk as below
  Note: For an easier installation, please connect the power and data cables first prior to screwing in the hard drive.

2.1.2 Install DVD Writer

Note: *DVD writers must be compatible to the DVRs. Please refer to "Appendix C Compatible Devices"*

- **Step 1:** Unscrew and open the DVR's top cover
- **Step 2:** Connect the power and data cables. Place the DVD writer onto the bottom case as below.

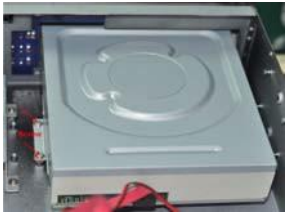


Fig 2.2

- **Step 3:** Screw the DVD writer in place as shown below.

2.2 Front Panel Descriptions

Note: The front panel descriptions are only for reference.

Item	Type	Name	Description
1	Work state indicator	Power	Power indicator, the light turns blue when connected
		HDD	When HDD is writing and reading, the light turns blue
		Net	When accessing the network, the light turns blue
		Backup	When backing-up files and data, the light turns blue
		Play	When playing video, the light turns blue
		REC	When recording, the light turns blue

Item	Type	Name	Description
2	Compound button	AUDIO/+	1. Control Voice 2. Increase the value in setup
		P.T.Z./-	1. Enter P.T.Z. mode in live 2. Decrease the value setup
		MENU	Enter menu in live
		INFO	Check recording data
		BACKUP	Enter backup mode in live
		SEARCH	Enter search mode
			Record manually
			Play/Pause
			Stop/Esc
			Rewind
			Fast forward
3	Digital button	1-9	Input number 1-9 or choose camera
		0/10+	Input number 0,10 and the above number together with other digital keys
4	Input button	Direction button	Change direction to select items
		Multi-screen	Change screen display mode to 1/4/9/16 channel
		Enter button	Confirm selection
5	USB	USB port	To connect external USB DVRs like USB flash, USB HDD for backup or update firmware; or connect to USB mouse

2.3 Rear Panel Instructions

2.3.1 Rear Panel Interface

The Rear Panel interface for the XPR16H is shown as Fig 2.3:

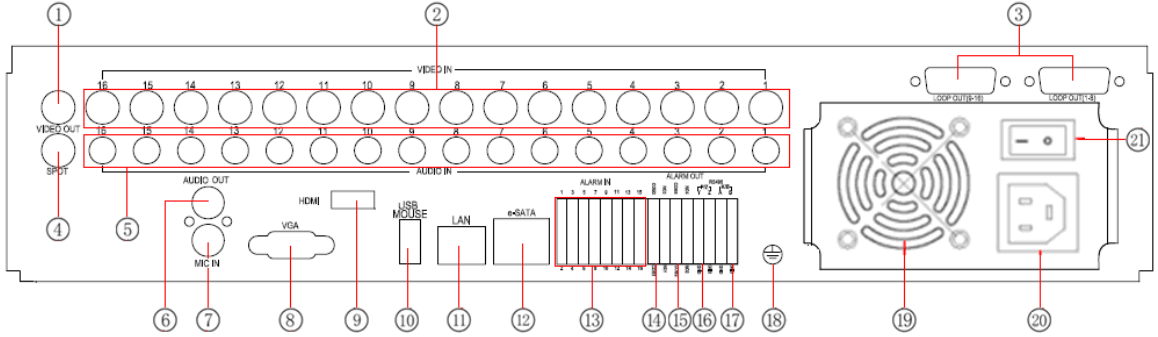


Fig 2.3 (Rear Panel for the XPR16H)

Item	Name	Description
1	Video out	Connect to monitor
2	Video in	Video input channels from 1-16
3	E-SATA	Connect to HDD for backup (optional)
4	LOOP OUT	For outputting 1-16ch image independently
5	Spot out	Connect to monitor as an AUX output channel by channel. Only video display, no menu show
6	Audio in	16 CH Audio input
7	Audio out	Audio output, connect to the sound box
8	MIC IN	Talk
9	VGA port	VGA output, connect to monitor
10	HDMI port	Connect to high-definition display device
11	USB port	connect to USB mouse
12	LAN	Network port
13	E-SATA	Connect to HDD for backup (optional)
14	ALARM IN	Connect to external sensor1-16
15	ALARM OUT	4ch relay output. Connect to external alarm.
16	GND	Grounding
17	P/Z	Connect to speed dome
18	K/B	Connect to keyboard
19	GND	Grounding
20	FAN	For cooling the device
21	POWER INPUT	AC 110V-220V
22	POWER SWITCH	Switch on/off

2.4 Remote Controller

The remote controller uses two AAA size batteries and works after loading batteries as following:

- **Step 1:** Open the battery cover of the Remote Controller
- **Step 2:** Place the batteries. Please take care of the polarity (+ and -) when placing the batteries
- **Step 3:** Replace the battery cover

Note: *To ensure the remote is always working correctly, please check:*

- *batteries are correctly positioned*
- *the remaining charge in the batteries*
- *IR controller sensor is not blocked*

If the remote still doesn't work, please contact your dealer for a new remote controller.

The interface of remote controller is shown in Fig2.4 Remote Controller:

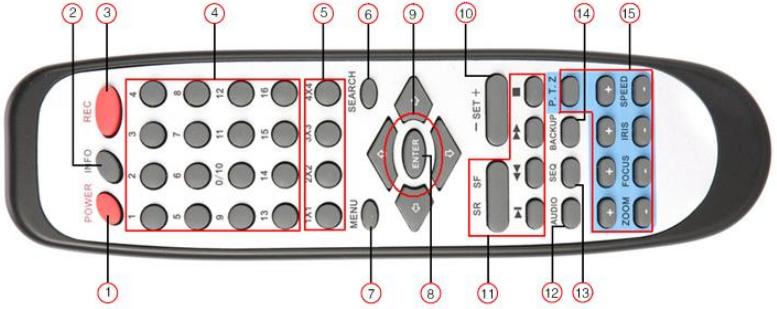


Fig 2.4

Item	Name	Function
1	Power Button	Soft switch off to stop firmware running.
2	INFO Button	Get information about the DVR like firmware version, HDD information
3	REC Button	To record manually
4	Digital Button	Input digital or choose camera
5	Multi Screen Button	To choose multi screen display mode
6	SEARCH Button	To enter search mode
7	MENU Button	To enter menu
8	ENTER Button	To confirm the choice or setup
9	Direction Button	Move cursor in setup or pan/title PTZ
10	+/- Button	To increase or decrease the value in setup
11	Playback Control Button	To control playback, Fast forward/rewind/stop/single frame play
12	AUDIO Button	To enable audio output in live mode
13	Auto Dwell Button	To enter auto dwell mode
14	BACKUP Button	To enter backup mode
15	PTZ Control Button	To control PTZ camera: Move camera/ZOOM/FOCUS/IRIS/SPEED control

Setting up the remote controller to operate multiple DVRs:

The default ID of the DVR is set to 0. It's not necessary to reset the DVR ID when a remote is to be used to control a single DVR. However when controlling multiple DVRs with multiple remote controllers, the user would need to configure the DVR ID. Please refer to the following steps:

- **Step 1**: *Synchronizing the remote controller and DVR*: Point the IR sensor of the remote controller to the IR receiver on the

front panel, press the number 8 key twice and then input the ID of the DVR to be controlled (Range from: 0-65535; the default DVR ID is 0). Press the “ENTER” button to confirm.

Note: *To check the DVR ID go to: Main Menu > Setup > Basic > Device ID. We recommend that users don’t set a long DVR ID.*

- **Step 2:** Un-synchronizing the remote controller and DVR: Point the IR sensor of the remote controller to the IR receiver on the front panel, press the number 8 key twice and then input the DVR ID that needs to be cancelled from controlling. Press the “ENTER” button to confirm. The remote controller should no longer be synchronized with the DVR.

2.5 Control with Mouse

2.5.1 Connect Mouse

The DVR supports a USB mouse which can be connected through either the port on the front or rear panel.

Note: *If mouse is not detected or doesn't work please follow the steps below:*

- *Please ensure that the mouse is correctly connected to the USB port*
- *Change the mouse and retry.*

2.5.2 Using the Mouse

In live mode:

- Double-click left mouse button on one camera to view full screen display. Double-click again to return to the previous multi-screen display
- Click right mouse button to show the control bar at the bottom of the screen (shows the control and setup functions). Right-click mouse again to hide the control bar.

In setup mode:

- Click left mouse button to enter
- Click right mouse button to cancel setup, or return to the previous page
- If you want to input a value, move the cursor to a blank space and click for an on-screen keyboard to appear (refer to Fig 2.5). The mouse will also support scrolling by the wheel on certain functions (i.e. setting time) and dragging (i.e. when setting area sizes in motion detection setup)

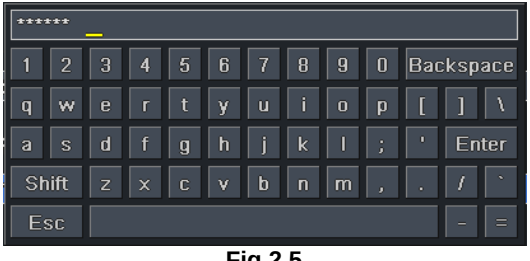


Fig 2.5

In playback mode:

- Click left mouse button to choose the options. Click right mouse button to return to live mode.

In backup mode:

- Click left mouse button to choose the options. Click right mouse button to return to previous picture.

In PTZ control mode:

- Click left button to choose the buttons to control the PTZ. Click right button to return to live mode.

Note: *It is recommended to use the mouse to operate and navigate the DVR unless otherwise stated*

3 Basic Functions

3.1 Power On/Off

Note: *Before you power on the unit ensure that cables are correctly connected.*

3.1.1 Power on

- **Step 1:** Connect the DVR to the power source and then switch on the power button at the back of the DVR.
- **Step 2:** The DVR will begin to boot up and this will be indicated by the blue light on the front panel.
- **Step 3:** A “Startup Wizard” window will pop-up and show information regarding the Device Name, Language, Date/Time Format, Time Zone and System Date/Time Setup. Users can setup these details on this page or exit the page (users can add this data the DVR’s main menu). Users also have the option to skip the Startup Wizard by un-selecting the corresponding check-box.
- **Step 4:** If there is a live image display without menu options, after the DVR has powered on, the user switch back to an operational display by pressing and holding the “ESC” button on the front panel.

Note: *The DVR can only display options on either a VGA monitor or BNC monitor at one time. If there is a live image display without menu options, please check the display on the other DVR/monitor, or long press the ESC key (as described in step 4 above). Long pressing the ESC key can switch the output between BNC and VGA.*

3.1.2 Power off

A user can power off the DVR by using the remote controller or keyboard/mouse.

By remote controller:

- **Step 1:** Press the Power button and a “Shut down” window will appear. Click OK and the unit initialize a power-off procedure.
- **Step 2**: Disconnect the power when prompted

By keyboard and mouse:

- **Step 1:** Go the main menu by clicking the button and select the “Shut Down” icon and the new window will pop-up
- **Step 2:** Click “OK” and the unit initialize a power-off procedure.
- **Step 3:** Disconnect the power when prompted.

3.2 Login

The DVR allows users to login/logout of the system. Once logged-out a user can only change the viewing options and will be unable to operate the DVR.

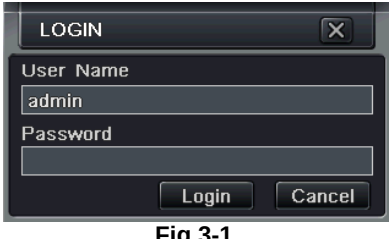


Fig 3-1

Note: *The default username and password is “**admin**” and “**123456**”.*

3.3 Live Preview

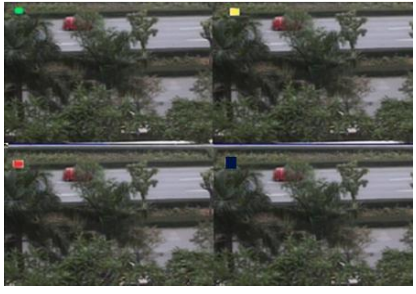


Fig 3-2

Symbol	Description
Green	Manual recording
Yellow	Motion detection recording
Red	Sensor Alarm recording
Blue	Scheduled recording

3.3.1 Playback

By right clicking the mouse or pressing the ESC button on the front panel will display a control toolbar at the bottom of the screen. Click the Play button to enter the Playback interface and access any recordings on the DVR (Please refer to Figure 3-3). Once in playback mode, the user can view the recording as an individual camera or a multi-camera view. The user can then scroll through the recording using the various playback buttons (i.e. fast forward, rewind, pause etc), as detailed in Figure 3-3).

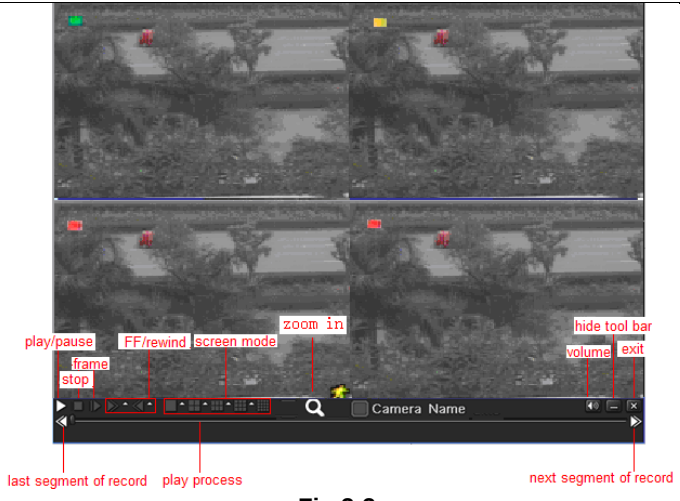


Fig 3-3

4 Main Menu and System Configuration

By right-clicking the mouse or pressing the ESC button on the front panel a control toolbar will be displayed at the bottom of the screen (refer to Fig 4-1):

Fig 4-1

Click the icon beside the screen display mode, a channel select dialog will appear. You can tick on/off the channels shown in the list to display the live pictures you require. Then click the button to confirm the setting as shown below:

Toolbar Functions:

- **Dwell**: Click to dwell on a single picture preview
- **Zoom:** Zooms electronically into a pre-selected channel. Firstly double click the left mouse button to select the desired channel. By selecting the E-Zoom button the image will automatically zoom into the top-left hand corner of the image. Additionally a small window will appear at the bottom of the screen, with cursor functions, that will allow the user to then navigate the amplified image. The user can also view different parts of the image by simply holding down the left mouse

button and dragging to the desired location. A right click on the mouse anywhere on the screen will exit the user to the original view.

- **Volume:** Adjust the volume on channels.
- **PTZ:** Click the PTZ button to control any connected speed domes (i.e. pan, tilt, zoom, tracking, auto scan and cruise). User can refer to PTZ configuration for further details.
- **Record:** Click this button to start manual recording.
- **Playback:** Click this button to playback the recorded files.

By clicking the Menu button and a Login window will appear. Input the user name and password to logon to the system interface (refer to Fig 4-2). The Main Menu can also be accessed by the “Menu” button on the front panel or the remote control. Click the “Setup” icon to enter the DVR’s configuration options (fig 4-2b).

Fig 4-2a

Fig 4-2b

4.1 Basic configuration

The basic configuration includes three sub menus: System, Date & Time and DST (Daylight Saving Time).

4.1.1 System

Fig 4-3

- **Step 1:** Go to Main Menu > Setup > Basic > System (refer to Fig 4-3)
- **Step 2:** The user can then setup various system parameters which are detailed below as follows:

  - *Device name:* The name of the DVR (This may help in identifying DVRs if managing multi-DVR sites).
  - *Video format:* There are two modes to choose: PAL and NTSC.
  - *Password check:* Enable the check-box to ensure user a prompted with a user name and password security check prior to accessing the DVR's Main Menu.
  - *Show time:* Enable the check-box to display the live time on the screen.
  - *Show wizard:* Enable the check-box if you want the Startup wizard to be displayed every time the DVR is powered on

- *Max Online Users:* Set the maximum amount of users that can access the DVR
- *Monitor:* Select the resolution of the live display (ranges from: VGA800*600, VGA1024*768, VGA1280*1024 and CVBS)
- *Language:* Select a suitable language to operate the DVR

Note: Switching between VGA and CVBS will change the menu output mode, please connect to relevant monitor.
Note: The user will have to log back in to the DVR if the Language or Video Outputs are changed**.**

4.1.2 Date & Time

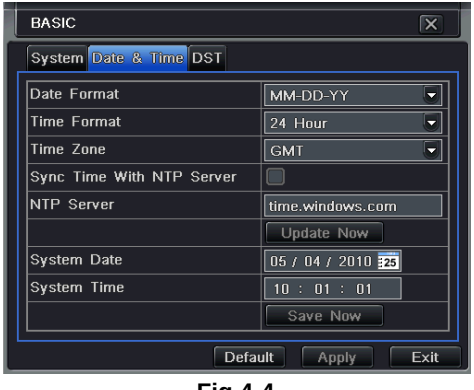


Fig 4-4

- **Step 1:** Go to Main Menu > Setup > Basic > Time & Date (refer to Fig 4-4)
- **Step 2:** The user can set various parameters including the Date Format, Time Format, Time Zone, System Date and System

Time. The user can also manually enter an Internet time server (NTP Server field) and selecting the corresponding check-box.

4.1.3 DST (Daylight Saving Time)

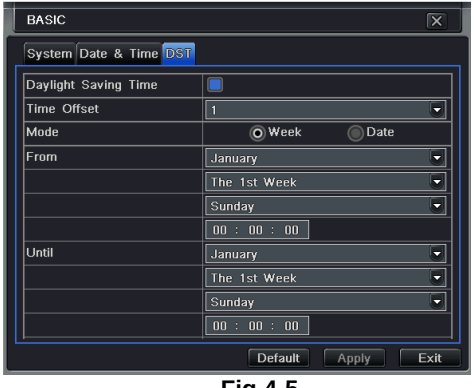


Fig 4-5

- **Step 1:** Go to Main Menu > Setup > Basic > DST (refer to Fig 4-5)
- **Step 2:** This interface allows the user to enter the various parameters to enable Daylight Saving Time including the Time Offset, Mode and the length of the DST (by means of date/week/time).

4.2 Display Configuration

The display configuration includes four submenus: Live, Main Monitor, Spot and Mask.

4.2.1 Live

In this interface, you can setup each individual camera's name and adjust its colours (i.e. Brightness, Hue, Saturation and Contrast).

Fig 4-6

- **Step 1:** Go to Main Menu > Setup > Basic > Live (refer to Fig 4-6)
- **Step 2:** Set the Camera Name and then select its corresponding check-box if you want its name to be displayed on the live display.

  Note: *By clicking the Camera Name an on-screen keyboard will appear. Click the Shift button to input Capital letters*.

- **Step 3:** By clicking the corresponding camera's "Setting" button, a colour setting window will pop-up (refer to Fig 4-7). This will then enable the user to adjust the Brightness, Hue, Saturation and Contrast for each individual channel. By selecting the

Default button the system will revert back to its DVR's default factory colour settings. Finally click "OK" to save any changes.

Fig 4-7

- **Step 4:** Users can setup all available channels with identical parameters; select "All" check-box and then complete the corresponding "settings" page, as per Step 3.

4.2.2 Main monitor

- **Step 1:** Go to Main Menu > Setup > Basic > Main Monitor (refer to Fig 4-8)

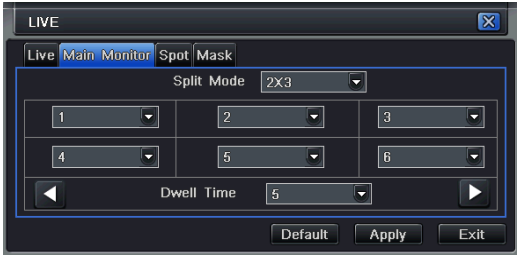


Fig 4-8

- **Step 2:** Select a suitable Split Mode for the live display (i.e. 1x1, 2x2, 2x3, 3x3, 4x4 etc) and then select the relevant channels to be displayed
- **Step 3:** Dwell Time; Set the time interval (i.e. seconds) for the channel display to stay before moving onto the next channel
- **Step 4:** Click buttons to scroll through the other available channels and set their desired Dwell Time.

4.2.3 Spot

Spot monitors allow the operator to view images of the live channels only and have no access to the DVR's settings or operational functions.

- **Step 1:** Go to Main Menu > Setup > Basic > Spot (refer to Fig 4-9)
- **Step 2:** Select the Split/Display Mode

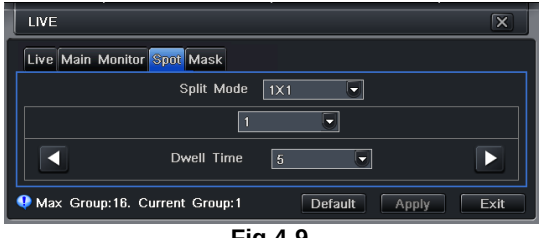


Fig 4-9

- **Step 3:** Dwell time: The time interval (i.e. seconds) for the channel display to stay before moving onto the next channel
- **Step 4:** Dwell Time; Click buttons to scroll through the other available channels and set their desired Dwell Time.

4.2.4 Mask

To prevent an operator from viewing certain areas on a channel, a user can setup Private Mask areas on the live display. A maximum of 3 private areas can be set up.

Fig 4-10

- **Step 1:** Go to Main Menu > Setup > Basic > Mask (refer to Fig 4-10)
- **Step 2:** Setup mask area: Click “Setting” button and enter the live display page. The user can then, by left-clicking the mouse and dragging, set the desired mask area (refer to Fig 4-11 and Fig 4-12). Click “Apply” button to save any changes. To delete a masked area simply double-click the left mouse button on the desired area.

Fig 4-11

Fig 4-12

4.3 Recording Configuration

Recording configuration includes six sub menus: Enable, Record Bit Rate, Time, Recycle Record, Stamp and Snap.

4.3.1 Enable

- **Step 1:** Go to Main Menu > Setup > Basic > Record > Enable (refer to Fig 4-13)

Fig 4-13

- **Step 2:** Select the check-boxes for each available camera to enable it to record both Video (Record) and Audio
- **Step 3:** Users can setup all channels with same parameters by selecting the “All” check-box and then the corresponding check boxes for Video (Record) and Audio.

4.3.2 Record stream

Fig 4-14

- **Step 1:** Go to Main Menu > Setup > Basic > Record > Record Bitrate (refer to Fig 4-14)
- **Step 2:** Select recording options for each available camera; Resolution, fps (Frames Per Second), Encode, Quality and Max Bitrate.
- **Step 3:** Users can setup all channels with same parameters by selecting the “All” check-box and then the corresponding recording options

Note: *If any value is set over the maximum resources of the DVR, the value will be adjusted automatically.*

Definitions and descriptions of Record stream:

Parameter	Meaning
Rate	Range from: 1-30 (NTSC) 1-25(PAL)
Resolution	Support CIF and D1
Quality	The higher the value is, the clearer the recorded image is. Six options: lowest, lower, low, medium, higher and highest.
Encode	VBR and CBR
Max bit stream	Range from: 64 Kbps、128 Kbps、256 Kbps、512 Kbps、768 Kbps、1Mbps、2 Mbps

4.3.1 Time

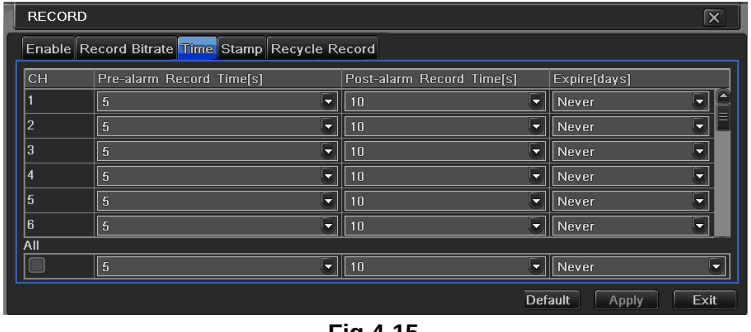


Fig 4-15

- **Step 1:** Go to Main Menu > Setup > Basic > Record > Time (refer to Fig 4-15)
- **Step 2:** Select recording options for each available camera:
  - *Pre-alarm record time:* recording time (seconds) before an event happens (i.e. recording time before motion detection or sensor alarm is triggered)
  - *Post-alarm record:* recording time (seconds) after an event has finished (i.e. recording time after motion detection or sensor alarm is triggered)
  - *Expire time:* amount of time (days) that the data from an event recording is kept on the hard drive. If the set time expires, the recorded files will be deleted automatically.
- **Step 3:** Users can setup all channels with same parameters by selecting the “All” check-box and then the corresponding options.

4.3.2 Stamp

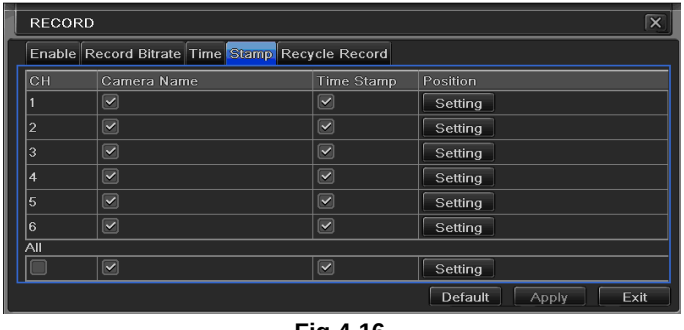
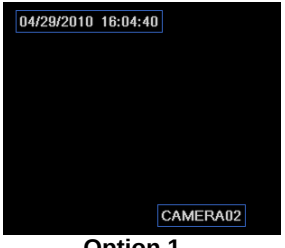
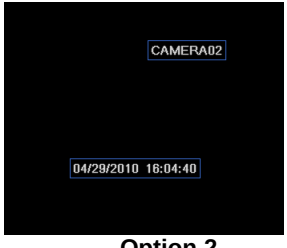


Fig 4-16

- **Step 1:** Go to Main Menu > Setup > Basic > Record > Stamp (refer to Fig 4-16)
- **Step 2:** Select desired check-boxes (i.e. Camera Name and Time Stamp) for each available camera. The Camera Name and Time Stamp refer to the camera information displayed on the screen.
- **Step 3:** Then by selecting the corresponding Setting button the user can then click and drag the Camera Name and Time Stamp to the desired position (see images Option 1 and Option 2 below)
- **Step 4:** Users can setup all channels with same parameters by selecting the “All” check-box and then the corresponding options.



Option 1



Option 2

4.3.3 Recycle record

- **Step 1:** Go to Main Menu > Setup > Basic > Record > Recycle Record
- **Step 2:** Select the “recycle record” check-box to enable the recycle record function. This function will allow the DVR to re-write over the existing hard drive automatically once it is full.

Note: Please note that if you disable this function the DVR will stop recording when HDD is full.

- **Step 3:** Click the “Apply” button to save any changes to the settings

4.4 Schedule Configuration

This interface allows the user to program scheduled recordings and includes the following 3 sub menus: Schedule, Motion and Alarm.

4.4.1 Schedule

Setting up a scheduled recording is detailed below as follows:

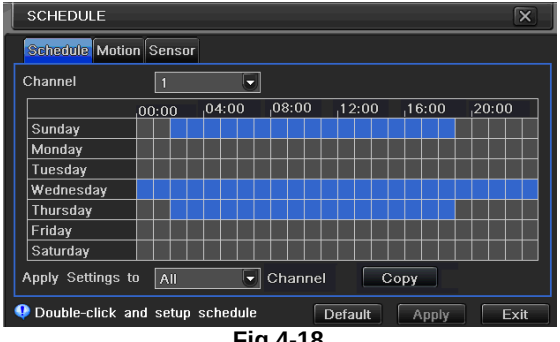


Fig 4-18

- **Step 1:** Go to Main Menu > Setup > Schedule > Schedule (refer to Fig 4-18)

  Note: A blue area refers to a scheduled recording period and consequently a grey area represents an unrecorded period

- **Step 2:** Select the desired camera to schedule from the list of available channels
- **Step 3:** Double click the day of the week that needs to be scheduled and another window will pop-up (refer to Fig 4-19)

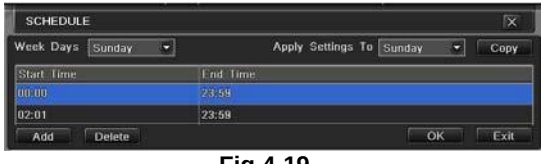


Fig 4-19

- **Step 4:** Click “Add” to set up a start and end time for the recording to be scheduled on the selected day. Additionally by clicking “Delete” the user can remove any pre-programmed periods.
- **Step 5:** Users can duplicate a schedule from one day to other specific days or the entire week; Select the chosen option from the drop down menu “Apply settings to” and then click “Copy”.
- **Step 6:** Click “OK” to save the settings.
- **Step 7:** On returning to the main Schedule page the user can select another channel to program by selecting from the drop-down box and follow the steps. Additionally users can duplicate a schedule from one channel to other specific channels or all channels; Select the chosen option from the drop down menu “Apply settings to” and then click “Copy”.
- **Step 8:** Click the “Apply” button to save any changes.

  Note: Users can click on “Default” to return to the factory original settings, which fully selects all periods and displays a completely blue grid.

4.4.2 Motion

Setting up Motion Detection is detailed below as follows:

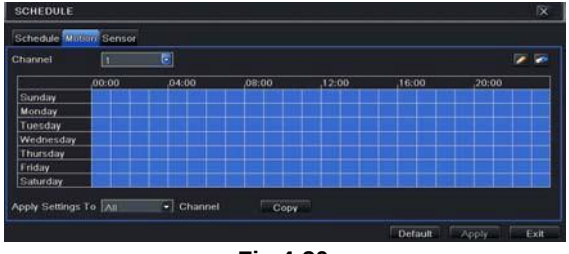


Fig 4-20

- **Step 1:** Go to Main Menu > Setup > Schedule > Motion (refer to Fig 4-20)
  Note: The procedure for setting up Motion Detection is similar to that for setting up Scheduled Recording; user can refer to 4.4.1 Schedule for details.
  Note: Users can click on “Default” to return to the factory original settings, which fully selects all periods and displays a completely blue grid.
- **Step 2:** Click “Apply” to save any changes.

4.4.3 Sensor

Setting up Sensor Detection is detailed below as follows:

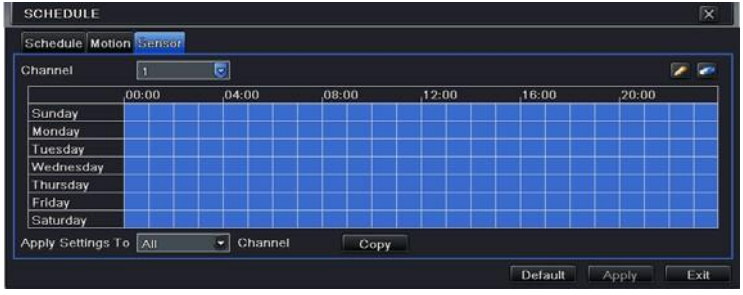


Fig 4-21

- **Step 1:** Go to Main Menu > Setup > Schedule > Sensor (refer to Fig 4-21)
  Note: The procedure for setting up Sensor Detection is similar to that for setting up Scheduled Recording; user can refer to 4.4.1 Schedule for details.
  Note: Users can click on “Default” to return to the factory original settings, which fully selects all periods and displays a completely blue grid.
- **Step 2:** Click “Apply” to save any changes.

4.5 Alarm configuration

Alarm Configuration includes five sub menus: Sensor, Motion, Video Loss, Other Alarm and Alarm Out.

4.5.1 Sensor

Sensor includes three sub menus: Basic, Alarm Handling and Schedule.

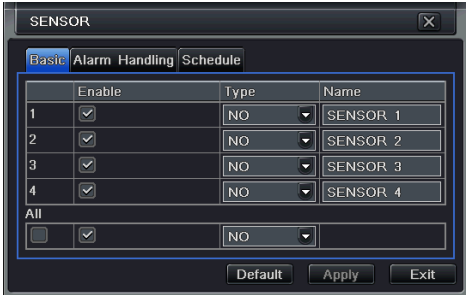


Fig 4-22

Setting up Basic:

- **Step 1:** Go to Main Menu > Setup > Alarm > Sensor > Basic (refer to Fig 4-22)
- **Step 2:** Select from the available channels that need to be alarm enabled by clicking the corresponding check-boxes.
- **Step 3:** Set the alarm connection type from the 2 options in the drop-down box “Type”: *NO* or *NC*.
- **Step 5:** Users can then set the Sensor Name by clicking the corresponding box “Name”
- **Step 6:** Users can setup all channels with same parameters by selecting the “All” check-box and the alarm connection type
- **Step 7:** Click “Apply” to save any changes.

Setting up Alarm Handling:

- **Step 1:** Go to Main Menu > Setup > Alarm > Sensor > Alarm Handling (refer to Fig 4-23)
- **Step 2:** Select the Holding Time (seconds) from the available channels. This is the amount of time before the alarm is triggered

Fig 4-23

Fig 4-24

- **Step 3:** Click the "Trigger" button for the corresponding channel which brings up a new window with the following 3 sub-menus "Alarm", "To Record" and "To P.T.Z" (refer to Fig 4-24):
  - **I. Alarm**
    - *Buzzer:* select the check-box to enable a buzzer when the alarm is triggered
    - *Full Screen:* select whether a full-screen is displayed when an alarm is triggered on the corresponding camera.
    - *To Alarm Out:* Select this check-box to send out an alarm signal if an alarm is triggered
    - *Email:* Select this check-box to enable a notification email to be sent to the user's assigned email box (including time, snap pictures, DVR name etc) when an alarm is triggered

II. To Record

- This function shows whether a camera is set to record when an alarm is triggered. Select check-boxes to each relevant camera that the user wants enabled.

III. To P.T.Z

- Any P.T.Z compatible camera set up on a channel can be enabled to Preset, Cruise and Track when an alarm is triggered. The user can select from the relevant drop-down boxes to each corresponding camera.

- **Step 4:** Users can setup all channels with same parameters by selecting the "All" check-box and all the "Trigger" Settings as described above.
- **Step 5:** Click "Apply" to save any changes.

Setting up Schedule:

- **Step 1:** Go to Main Menu > Setup > Alarm > Sensor > Schedule (refer to Fig 4-25)

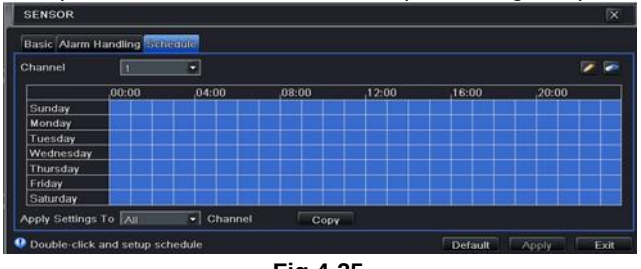


Fig 4-25

Note: The procedure for setting up the Schedule is similar to that for setting up Scheduled Recording; user can refer to 4.4.1 Schedule for details.

Note: Users can click on "Default" to return to the factory original settings, which fully selects all periods and displays a completely blue grid.

- **Step 2:** Click "Apply" to save any changes.

4.5.2 Motion

Motion includes two sub menus: Motion and Schedule.

Setting up Motion:

- **Step 1:** Go to Main Menu > Setup > Alarm > Motion > Motion (tab) (Fig 4-26)

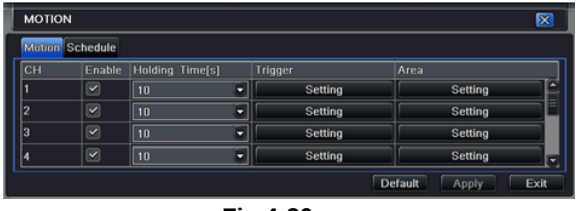


Fig 4-26

- **Step 2:** Click the relevant check-boxes to the channels that you want enabled
- **Step 3:** Select the “Holding Time” (seconds) from the drop-down boxes. The holding time refers to the time amount of time before the system will rearm the motion detection. If another motion is detected during this interval period it is considered to be continuous movement and is consequently ignored.
- **Step 4:** Click the “Trigger” button for the corresponding channel which brings up a new window with the following 3 sub-menus “Alarm”, “To Record” and “To P.T.Z”
  Note: The procedure for setting up the “Trigger” is identical to that for setting up “Alarm Handling”; users can refer to 4.5.1 for details.
- **Step 5:** Click the “Area” button for the corresponding channel which brings up a new window (with a grid) for that selected channel (refer to Fig 4-28)

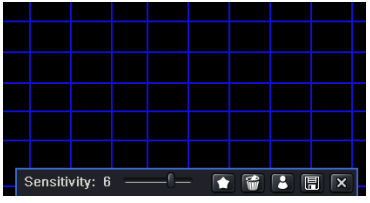


Fig 4-28

- **Step 5:** The user can drag the sliding bar, at the bottom of the page, to set the sensitivity levels from 1-8 (the higher the value the greater the sensitivity).
- **Step 6:** Clicking the icon will set the whole area as a detection area. To remove certain areas from the detection grid click and drag on the grid the desired area. By clicking the icon the entire detection grid will be cleared. By clicking the icon the user will be able to test whether the sensitivity value and motion area are suitable accordingly (refer to Fig 4-29).

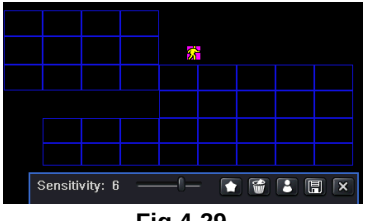


Fig 4-29

- **Step 7:** Click the icon to save the settings and the icon to exit current interface.

Note: To set up a new detection area, the user will have to firstly clear the previously defined area by clicking the icon

- **Step 8:** Users can setup all channels with same parameters by selecting the "All" check-box and the relevant "Holding Time". However the "Trigger" and "Area" still need to be setup individually per camera.
- **Step 9:** Click "Apply" to save any changes.

Setting up Schedule:

- **Step 1:** Go to Main Menu > Setup > Alarm > Motion > Schedule (tab) (Fig 4-30)

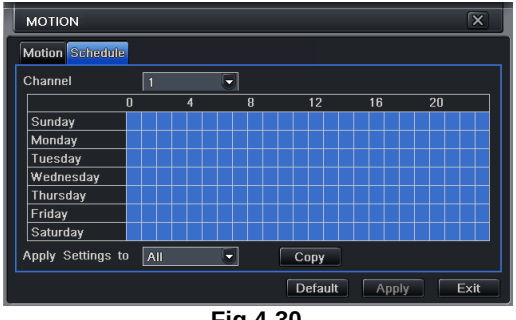


Fig 4-30

Note: The procedure for setting up the Alarm Schedule is identical to that for setting up Scheduled Recording; user can refer to 4.4.1 Schedule for details.

- **Step 2:** Click "Apply" to save any changes.

4.5.3 Video Loss

- **Step 1:** Go to Main Menu > Setup > Alarm > Video Loss (Fig 4-31)

Fig 4-31

- **Step 2:** Click the "Trigger" for the corresponding channel you want to set up and this will bring up a new window showing 2 sub menus: "Alarm" and "To P.T.Z"
  Note: The procedure for setting up the "Trigger" is identical to that for setting up "Alarm Handling". Users can refer to 4.5.1 for details.
- **Step 3:** Users can setup all channels with same parameters by selecting the "All" check-box and selecting the relevant "Trigger" Settings.
- **Step 4:** Click "Apply" to save any changes

4.5.4 Other Alarm

- **Step 1:** Go to Main Menu > Setup > Alarm > Other Alarm (Fig 4-32)

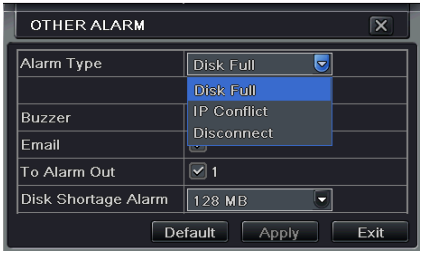


Fig 4-32

- **Step 2:** Select the “Alarm Type” from the drop-down box and displays the following options:
  - **Disk Full:** Once the hard disk is full the DVR will automatically the user can be notified in various methods. Users can choose from a “Buzzer”, “Email” and an “Alarm Out signal, which can be selected individually or together. Additionally the user has the option of “Disk Shortage Alarm” that activates prior to the hard disk reaching its capacity. User can select various options from the designated drop-down box.
  - **IP conflict:** If there is an IP address conflict within the same network, the DVR will sound a “Buzzer” or an “Alarm Out” signal. Users can select the relevant check-boxes.
  - **Disconnect:** If a cable unexpectedly disconnects, the DVR will sound a “Buzzer” or an “Alarm Out” signal. Users can select the relevant check-boxes.
  - **Disk Warning:** If the hard disk develops an unexpected error, the DVR will sound a “Buzzer”, send an “Alarm Out” signal or an email (i.e. the designated email address). Users can select the relevant check-boxes.
- **Step 3:** Click “Apply” to save any changes

4.5.5 Alarm Out

Alarm Out includes three sub menus: “Alarm Out”, “Schedule” and “Buzzer”

Setting up Schedule:

- **Step 1:** Go to Main Menu > Setup > Alarm > Alarm Out > Alarm Out (tab) (Fig 4-33)

Fig 4-33

- **Step 2:** Select a “Relay Name” and set a corresponding “Holding Time”. The holding time refers to the time amount of time before the system will send out another “Alarm Out” signal.
  - **Step 3:** Users can setup all channels with same parameters by selecting the “All” check-box and then the relevant “Holding Time”.
  - **Step 4:** Click “Apply” to save any changes

Setting up Schedule:

- **Step 1:** Go to Main Menu > Setup > Alarm > Alarm Out > Schedule (tab)
  Note: The procedure for setting up the “Alarm Out Schedule” is identical to that for setting up “Schedule”. Users can refer to 4.4.1 for details.
- **Step 2:** Click “Apply” to save any changes

Setting up Buzzer:

- **Step 1:** Go to Main Menu > Setup > Alarm > Alarm Out > Buzzer (tab)
- **Step 2:** Select the check-box to enable the buzzer
- **Step 3:** Select the “Buzzer Hold Time” (i.e. seconds)
- **Step 4:** Click “Apply” to save any changes

4.6 Network configuration

Network configuration includes four submenus: Network, Sub-stream, Email and Other Settings.

4.6.1 Network

- **Step 1:** Go to Main Menu > Setup > Network > Network (tab) (refer to Fig 4-34)

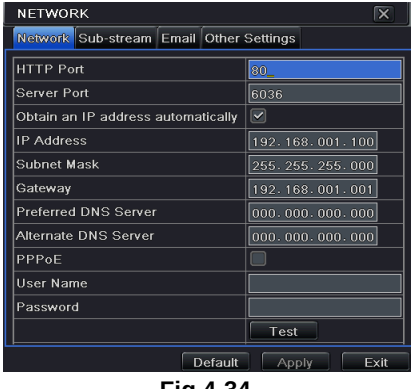


Fig 4-34

- **Step 2:** Select the relevant HTTP port number (the default number is 80).
  Note: If the port number has changed from the default of 80, the user needs to add the port number when typing the IP address into an internet browser address bar (i.e. If the user wants to set the HTTP port to 82 with the IP address http://192.168.0.25, the user will add it as follows: http://192.168.0.25:82)

- **Step 3:** Set the “Server Port” number (i.e. communication port)
- **Step 4:** If the user selects the check-box "Obtain an IP address automatically"; the DVR will distribute an IP address, Subnet Mask and Gateway. If this option is not taken the user can manually enter data into those fields. The Preferred and Alternate DNS Server field need to be added manually.
- **Step 5:** By selecting the “PPPoE” check-box the user can connect the DVR directly to the internet via an ADSL line. Input the corresponding “User Name” and “Password” in the fields and then the “Test” button to check if the details are correct.

4.6.2 Sub stream

- **Step 1:** Go to Main Menu > Setup > Network > Sub-stream (tab) (refer to Fig 4-35)

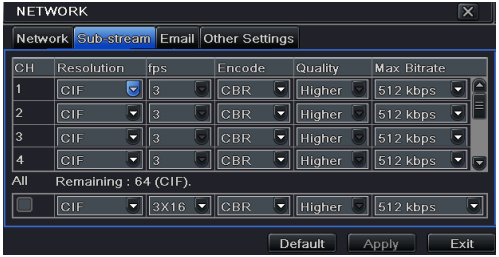


Fig 4-35

- **Step 2:** The user, for each available camera, can select the following options:
  - FPS (Frames Per Second): The higher the value the smoother the picture (range from 1-25)
  - Encode: VBR or CBR
  - Quality: refers to the quality of the image and ranges from Lowest to Highest
  - Max Bitrate: refers to rate of data transfer and ranges from 64 Kbps to 2 Mbps
- **Step 3:** Users can setup all channels with same parameters by selecting the “All” check-box and then the relevant options.
- **Step 4:** Click “Apply” to save any changes

4.6.3 Email

- **Step 1:** Go to Main Menu > Setup > Network > Email (tab) (refer to Fig 4-36)

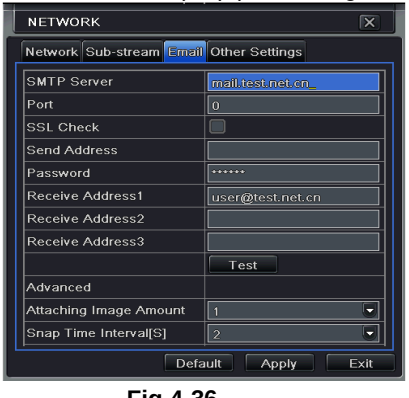


Fig 4-36

- **Step 2:** Fill in the relevant fields for setting the designated email. The fields are detailed as follows:
  - *SMTP Server:* The name of the SMTP server
  - *Port:* The server port number.
  - *SSL*: Select this check-box if the user's server requires a secure connection (SSL)
  - *Send Address/Password:* User's designated email address/password from which notifications will be sent.
  - *Receive Address:* Users can add at up to three email addresses to receive any notifications.
  - *Attaching image:* User can set the amount of images that can be sent at one time (maximum of 3)
  - *Snap Time Interval*: User can select the time between the snapshots being taken.
- **Step 3:** Click the "Test" button to check if the settings for the email addresses are correct.
- **Step 4:** Click "Apply" to save any changes

4.6.4 Other settings

This interface is in relation to the user setting up remote access to the DVR so that it can be accessed over a browser via the internet.

Note: A user must set-up an account with a suitable Dynamic DNS (DDNS) provider before they can fill out the relevant fields in this section. These providers allow you to point a hostname to a dynamic or static IP address or URL. We have used www.dyndns.com to illustrate this example. For further details on setting up a DDNS account see below:

- **Step 1:** Go to Main Menu > Setup > Network > Other Settings (tab) (refer to Fig 4-37)

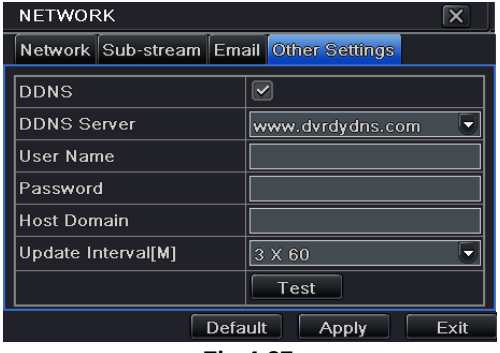


Fig 4-37

- **Step 2:** Select the DDNS check-box to enable its functions:
- **Step 3:** The user then needs to input the following details from the DDNS provider: “User Name”, “Password” and “Host Domain” name of the registered website.
- **Step 4:** Click the “Test” button to check if the settings for the DDNS provider are correct.
- **Step 5:** Click “Apply” to save any changes

Setting up a Dynamic DNS account:

The process on setting up a DDNS account is detailed below as follows as an example:

- **Step 1:** Go to the webpage www.dyndns.com and scroll to the bottom of the page to look for “Free Domain Name” registration. The user can then define a hostname and choose a suitable domain name (i.e. “abc.dyndns.tv”) and then finish by clicking “Add”.
- **Step 2:** The user should then be forwarded to Shopping Cart page showing the selected name (refer to Fig 4-38).

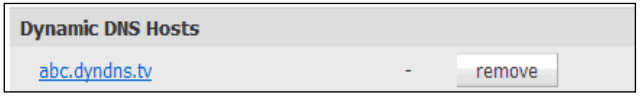


Fig 4-38

- **Step 3:** On the same page the user will be prompted to create a user account by adding a Username and Password (i.e. username “abc” and password “123456”).The user should then follow the relevant instructions to proceed and activate the selected domain name.

Using the DDNS Account details:

Note: This DVR only supports the following providers: www.dns2p.com, www.meibu.com, www.dyndns.com and www.no-ip.com

- **Step 1:** Once the registration process is completed, the user has all the required information to fill out the fields in the previous section “4.6.4 Other Settings”. As per our example the user would input as follows:
  - DDNS Server: www.dyndns.com
  - User Name: abc
  - Password: 123456
  - Host Domain: abc.dyndns.tv
- **Step 2:** The user then needs to configure their router for “Port Forwarding”. This can be done by going to the configuration interface of the router and then mapping the server port and IP address. For further details on “Port Forwarding” please contact technical support.

  Note: “Port Forwarding” settings/techniques may vary with different manufacturers. Please contact your internet service provider (ISP) or the router manufacturer for further assistance.

- **Step 3:** The client can then log into the DVR, via an internet browser, as follows (based upon our example): “http://www.abc.dyndns.tv”

4.7 User management configuration

- **Step 1:** Go to Main Menu > Setup > Users (refer to Fig 4-39)
- **Step 1:** To add a new user to the system click " Add" button and a new window will pop-up (refer to Fig 4-40), which will bring up 2 sub-menus: "General" and "Authority"

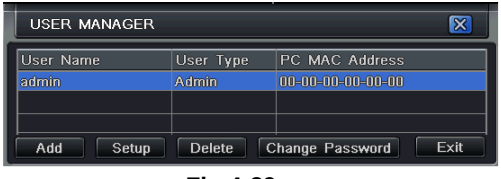


Fig 4-39

Fig 4-40

Setting up General:

- **Step 1:** The user can input a suitable "User Name", "Password" and also select a "User Type" (i.e. Normal or Advanced)
- **Step 2:** By selecting the check-box "Binding PC MAC Address" the new user can be limited to access the DVR from a specific address only. The "PC MAC Address" can then be added in the corresponding field below.
  Note: If the "PC MAC Address" is set as the default "00-00-00-00-00-00", the user is not bound to a specified computer.
- Click "OK" to save any changes

Setting up Authority:

- **Step 1:** Go to Main Menu > Setup > Users > Authority (tab) (refer to Fig 4-41):
- **Step 2:** Select the relevant “function” check-boxes the user will have access to. These include Log Search, System Setup, Shut Down, Two Way Audio, File Management, Disk Management, Remote Login and Live View.
- **Step 3:** As in the “**Step 2**” the user access rights can also be defined by each specific available channel. This includes Live View, Manual Record, Playback, Backup, P.T.Z Control and Remote Live View.

.

Fig 4-41

4.8 P.T.Z Configuration

P.T.Z configuration includes two submenus: “Serial Port” and “Advanced”

Setting up Serial Port:

- **Step 1:** Go to Main Menu > Setup > P.T.Z > Serial Port (tab) (refer to Fig 4-42):

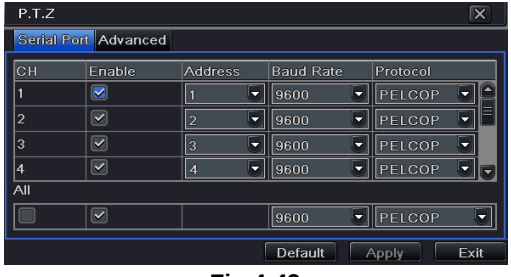


Fig 4-42

- **Step 2:** Select the relevant cameras that you want enabled for P.T.Z.
- **Step 3:** Setup the corresponding P.T.Z details for each selected camera including the Address (i.e. Camera ID), Baud Rate and Protocol.
- **Step 4:** Users can setup all channels with same parameters by selecting the “All” check-box and then the relevant P.T.Z settings.
- **Step 5:** Click “Apply” to save any changes

Note: The P.T.Z protocols supported by this DVR include the following: NULL, PELCO P, PELCO D, LILIN, MINKING, NEON, STAR, VIDO, DSCP, VISCA, SAMSUNG, RM110 and HY

Setting up Advanced:

- **Step 1:** Go to Main Menu > Setup > P.T.Z > Advanced (tab) (refer to Fig 4-43). The interface will display 3 options for each available channel: Preset, Cruise and Track.

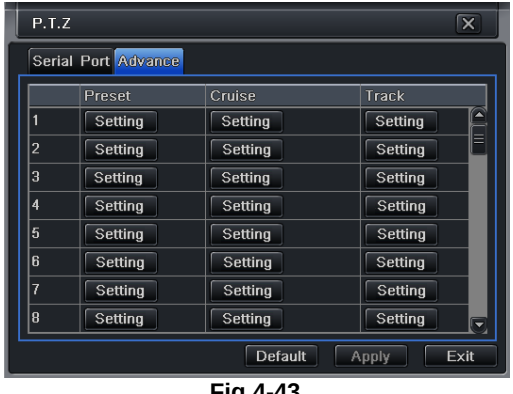


Fig 4-43

- **Step 2:** By clicking the Preset “Setting” button a new window will pop-up (refer to Fig 4-44)

Fig 4-44

- Under the “Name” field a user can add a name for a defined Preset (Up to 128 Presets can be created).
- To setup a Preset sequence, click the “Setting” button and a new window will open pop-up (refer to Fig 4-45)

Fig 4-45

- The user can click the cursor to move the camera in various directions, control the camera’s movement speed and adjust settings for the Zoom, Focus and Iris.

- Click the icon to hide the tool bar (click again to reappear) and click the icon to exit the interface.
- Other presets can be selected directly from the drop-down box “No.” without returning to the previous menu
- Click the “Save” button to save any changes

- **Step 3:** On returning to the main preset interface (Fig 4-44), click the “OK” button to save any changes and return back to the main P.T.Z page (Fig 4-43)

- **Step 4:** By clicking the Cruise “Setting” button a new window will pop-up (refer to Fig 4-46)

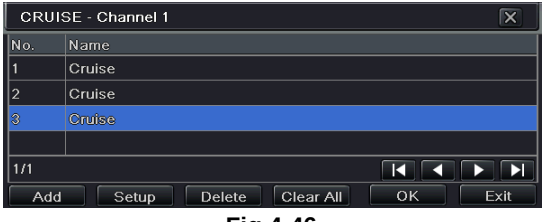


Fig 4-46

- Click “Add” to insert a cruise sequence to the list (a maximum of 8 cruise lines can be added).
- To setup a “Cruise” in detail, click “Setup” on the selected item and a new window will pop up (refer to Fig 4-47)

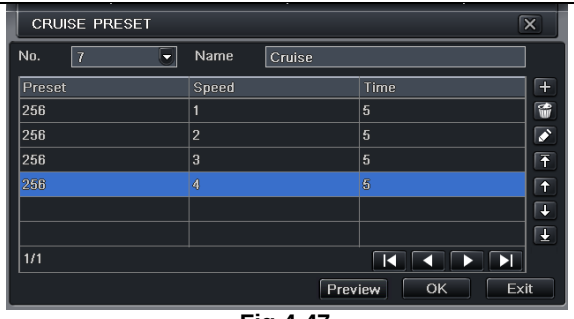


Fig 4-47

- Click the icon to set the speed and time of preset point
- Select a preset and click the icon to delete that preset point
- Click Modify icon to modify the setting of a preset point.
- User can click those icons to adjust the position of preset point.
- Click Preview button to preview the defined “Cruise”
- Click “OK” button to save the changes and the “Exit” button to exit current interface.

- On returning back to the cruise setting interface (Fig 4-46). The user can click “Delete” button to remove a specific cruise line or click the “Clear All” button to remove all defined cruises in the list.
- Click “OK” button to save the setting; click Exit button to exit current interface
- Clicking “Exit” again will return the user back to the main “Advance” interface (Fig 4-43)

- **Step 5:** By clicking the Track “Setting” button a new window will pop-up (refer to Fig 4-48)

Fig 4-48

  - The user can click the cursor to move the camera in the various directions, control the camera’s movement speed and adjust settings for the Zoom, Focus and Iris.
  - Click the “Start Record” button to record the movement of PTZ. Click this button again to stop the recording.
  - Click the “Start Track” button to play the recorded track. Click this button again can stop play.
  - Click the icon to hide the tool bar (click again to reappear) and click the icon to exit the interface.

- **Step 6:** By returning back to the main “Advance” interface the user can click “Apply” to save any changes, click “default” button to return to factory settings and click “Exit” button to the setup menu.

4.9 Advanced

The Advanced configuration includes three submenus: “Reset”, “Import/Export” and “Block/Allow” list.

4.9.1 Reset

By clicking the “Reset” button the DVR will revert back to the factory default settings.

4.9.2 Import/Export

Users can export data files to an external USB storage device (i.e. as a backup function). Additionally users can also import data files into the DVR (i.e. firmware update or recordings from other DVR’s).

5 Recording Search, Playback and Backup

The Search configuration includes four submenus: “Time Search”, “Event Search”, “File Management” and “Image”.

5.1 Time search

- **Step 1**: Go to Main Menu > Search > Time Search (tab) (refer to Fig 5-1)

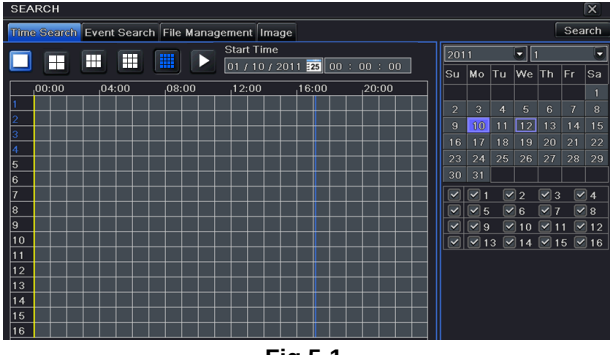


Fig 5-1

Note: The horizontal columns represent the channels and the vertical columns represent the time (i.e. hours)

- **Step 2:** Users can select from single or multi-channel view.
- **Step 3:** To select the search parameters, users can click the relevant check-boxes to choose which channels and dates (from the calendar) to include in the search. Users can also select the start time by clicking on the main grid or manually enter the search parameters in the “Start Time” field.

Note: On the calendar any date highlighted in blue shows that particular date has recorded data

- **Step 4:** Click the “Search” button to start the search.
- **Step 5:** To play the resulting data/recordings click the button. Click the relevant buttons on the screen (refer to Fig 5-1) for further playback options (i.e. fast forward/rewind, zoom etc):

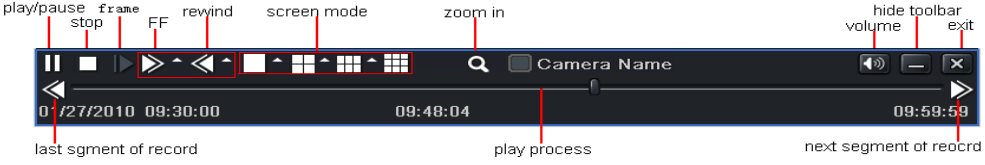


Fig 5-1

Note: If the monitor’s resolution is set to VGA 800*600, the search interface will appear as a hidden button. Click this button, to expand the whole interface.

5.2 Event search

- **Step 1**: Go to Main Menu > Search > Event Search (tab) (refer to Fig 5-2)

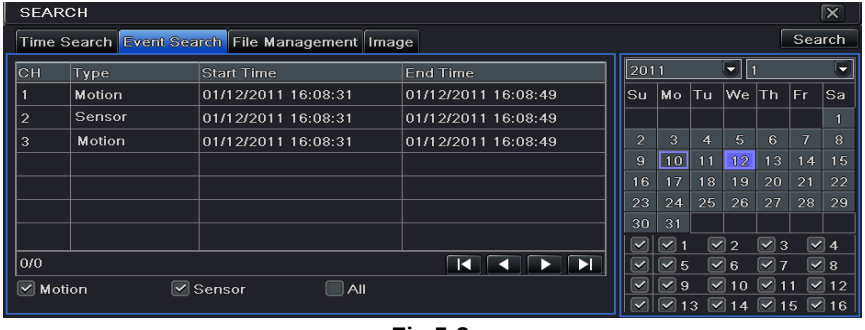


Fig 5-2

- **Step 2:** To select the search parameters, users can click the relevant check-boxes to choose which channels and dates (from the calendar) to include in the search
  Note: On the calendar any date highlighted in blue shows that particular date has recorded data
- **Step 3:** Click the “Search” button to start the search. The search results will be displayed in the event list box as per the Channel (CH), Event Type (Type), Start and End Time. Additionally users can choose the event-type by selecting the relevant check-boxes for “Motion”, “Sensor” or the “All” button, to narrow the search options further.
- **Step 3:** Double-click the relevant line to playback the event file.

  Note: If the monitor’s resolution is set to VGA 800*600, the search interface will appear as a hidden button. Click this button, to expand the whole interface.

5.3 File Management

- **Step 1**: Go to Main Menu > Search > File Management (tab) (refer to Fig 5-3)

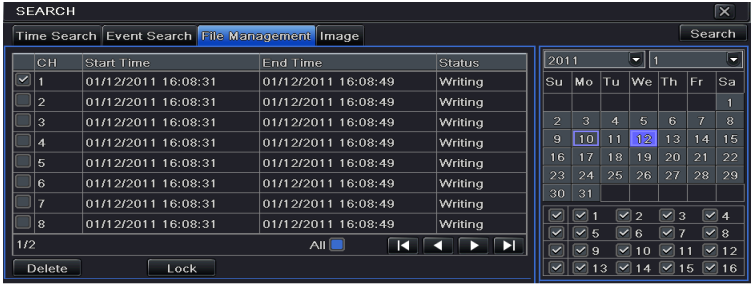


Fig 5-3

- **Step 2:** To select the search parameters, users can click the relevant check-boxes to choose which channels and dates (from the calendar) to include in the search.
- **Step 3:** Click the “Search” button to start the search. The search results will be displayed in the event list box as per the Channel (CH), Start Time, End Time and Status. The following options can then be applied when the relevant check-boxes are selected:
    - **Lock:** Click the “Lock” button to lock the file(s) (protects the file from being deleted or being re-written over).
    - **Unlock:** Click the “Unlock” button to unlock the file(s) from previous file protection settings.
    - **Delete:** Click the “Delete” button to remove an unlocked file.

Note: Select the “All” check-box to apply the “Lock/Unlock” or “Delete” options on all the files simultaneously.

- **Step4:** Double-click an unlocked item to play the file.

Note: If the monitor's resolution is set to VGA 800*600, the search interface will appear as a hidden button. Click this button, to expand the whole interface.

5.4 Backup

The DVR supports a backup function by 2 main methods:

- The built-in DVD Writer
- An external USB storage device (i.e. USB memory stick). The DVR features 2 USB ports (front and back panel), either of which can be used to back-up any recorded data.

Additionally the DVR also features a Remote Backup function, allowing any recorded data to be backed-up up externally, by means of an internet browser (refer to section "7.3.2 Remote Backup").

- **Step 1**: Go to Main Menu > Backup (refer to Fig 5-4)

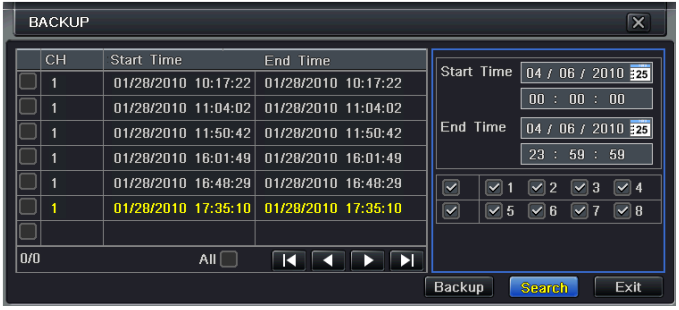


Fig 5-4

- **Step 2:** To select the backup file parameters, users can click the relevant check-boxes to choose which channels and manually enter date/time into the “Start Time” and “End Time” fields.
- **Step 3:** Click the “Search” button to start the search. The search results will be displayed as a list as per the Channel (CH), Start Time, End Time.
- **Step 3:** Select the relevant check-boxes from the list that are to be backed up (select the “All” option to apply the backup to all items simultaneously). Once selected click the “Backup” button and a new information window will pop-up.
- **Step 4:** In this new window the user can select the relevant check-boxes on the information for backup files (i.e. storage type, file type etc.). Click the “Start” button to start the backup process.
  Note: If the monitor’s resolution is set to VGA 800*600, the search interface will appear as a hidden button. Click this button, to expand the whole interface.

6 Manage DVR

6.1 Check System Information

Check system information includes five submenus: System, Event, Log, Network and Online User.

6.1.1 System information

In this interface, the user can check key information about DVR (i.e. the firmware version, MCU version, kernel version, DVR ID, etc.)

6.1.2 Event information

In this interface, the user can check recorded events according to a set date.

Note: if there are overlapping files, a “+” character will be shown behind the channel ID.

6.1.3 Log information

In this interface, the user can check the relevant log information according to a set date.

Note: Users can export the log data files to a USB storage device.

6.1.4 Network information

In this interface, users can check the relevant network parameters on the system.

6.1.5 Online Information

In this interface, users can check the details of the current connection status of online users. The following options can be applied:

- **Refresh**: Refresh the current interface and connection status of any online users.
- **Disconnect:** The administrator is authorized to disconnect any specific users. The disconnected PC will not be able to access the DVR for at least five minutes.

6.2 Manual Alarm

In this interface, users can check the relevant parameters within the “Manual Alarm” settings.

6.3 Disk Management

- **Step 1**: Go to Main Menu > Disk Management (refer to Fig 4-2)
  Note: Please format the hard disk before you begin any recording on the DVR. If the hard disk has already been formatted it will show the disk usage information at the bottom of screen.
- **Step 2:** Click the “Refresh” button to refresh any information on the hard disk. Set the relevant disk properties and then click the “Apply” button to save any changes.
- **Step 3:** Check the hard disk and then click the “Format” button to start formatting the hard disk.
  Note: All recorded files on the hard disk will be lost after the hard disk is formatted.

6.4 Upgrade

The DVR currently only supports firmware updates by uploading directly from an external USB storage device. Please obtain the latest firmware version from your vendor and ensure its compatibility with the DVR model. Get the software from your vendor when

there is a new software version, and make sure it is corresponding with the DVR. Users can check the USB information within Disk Management (section 6.3) and the DVR's firmware version (section 6.1.1).

Upgrading the Firmware:

- **Step 1:** Check The user needs to copy the upgrade software taken from the vendor into the USB storage DVR and then connect to the USB port.
- **Step 2:** Enter Main Menu > Upgrade (refer to Fig 4-2)
- **Step 3:** The firmware upgrade version is displayed in the list. Select the relevant firmware and then click the "Upgrade" button.
  Note: The DVR will upgrade automatically. Please wait for a while when the system is upgrading and rebooting. Please ensure power to the DVR is never cut-off during any upgrades.

6.5 Logoff

- **Step 1:** Enter Main Menu > Logoff (refer to Fig 4-2)
- **Step 2:** Click the "Log Off" icon and a log-off dialogue box will popup. Click the "OK" button and the DVR will initiate a log off sequence.
  Note: If users want to login again click the icon and enter the relevant "User Name" and "Password" details to re-login.

7 Remote Surveillance

7.1 Accessing DVR

When setting up the remote view functionality, the DVR must be connected to a LAN or the internet. The DVR is supports the Windows operating system (Windows XP and above) and is designed to work with Internet Explorer.

7.1.1 On LAN

- **Step 1:** Go to Main Menu > Setup > Network > (refer to Fig 4-34). Please ensure that the "network" and "Sub-Stream" settings are correctly configured (refer to "4.6.1 Network Configuration").
- **Step 2:** Open Internet Explorer on a computer that operates on the same network as the DVR. Input the DVR's IP address directly into Internet Explorer's address bar and press enter (i.e. http://192.168.0.25)
  Note: If the port number has changed from the default of 80, the user needs to add the port number when typing the IP address into an internet browser address bar (i.e. If the user wants to set the HTTP port to 82 with the IP address http://192.168.0.25, the user will add it as follows: http://192.168.0.25:82).
- **Step 4:** Internet Explorer will prompt the user to install specific ActiveX controls.
- **Step 5:** A login window will pop up and request for the "Username" and "Password" details. The click the "Enter" button.
  Note: *The default is username and password is "admin" and "123456".*
- **Step 6:** The user should be successfully logged into the browser interface (refer to Fig 7-1):

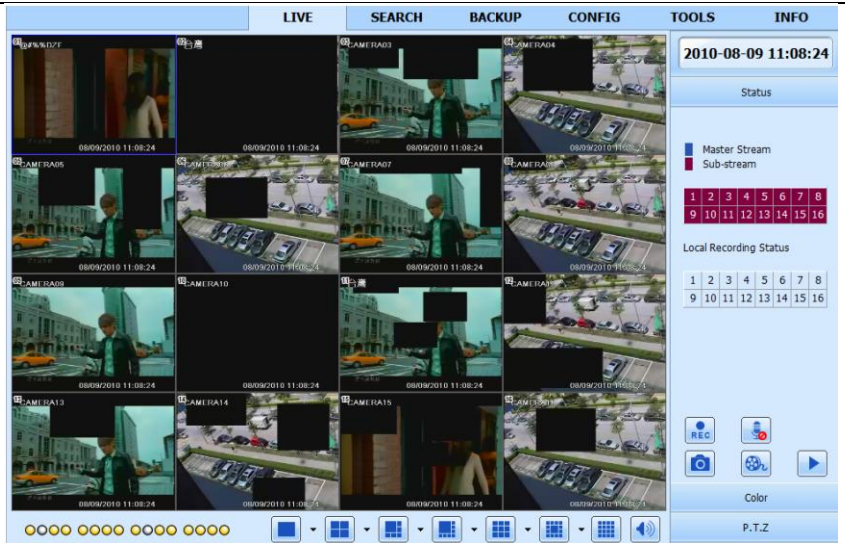

LIVE
SEARCH
BACKUP
CONFIG
TOOLS
INFO
2010-08-09 11:08:24
Status
Master Stream
Sub-stream
1 2 3 4 5 6 7 8
9 10 11 12 13 14 15 16
Local Recording Status
1 2 3 4 5 6 7 8
9 10 11 12 13 14 15 16
REC
Color
P.T.Z

Fig 7-1

7.1.2 On WAN

There are two ways to connect to the DVR over the internet, detailed below as follows:

Connecting via a router or a dynamic DNS account:

Note: This DVR only supports the following providers: www.dns2p.com, www.meibu.com, www.dyndns.com and www.no-ip.com. Please refer to section “4.6 Network Configuration” for further details.

- **Step 1:** Go to Main Menu > Setup > Network > (refer to Fig 4-34). Please ensure that the “network” and “Sub-Stream” settings are correctly configured (refer to “4.6.1 Network Configuration”).
- **Step 2:** The user then needs to configure their router for “Port Forwarding”. This can be done by going to the configuration interface of the router and then mapping the server port and IP address. For further details on “Port Forwarding” please contact technical support.

Note: “Port Forwarding” settings/techniques may vary with different manufacturers. Please contact your internet service provider (ISP) or the router manufacturer/manual for further assistance.

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- **Step 3:** Open Internet Explorer and input the IP address (Static address), or dynamic domain name and enter. If HTTP port is not 80, add the port number after IP address or domain name.
- **Step 4:** IE will download ActiveX automatically. Then a window pops up and asks for user name and password.
- **Step 5:** Input name and password correctly, and enter to view.

Note: *If you cannot download and install ActiveX, please refer to” Appendix A” FAQ Q7.*

Connecting the DVR to the Internet directly:

- **Step 1:** Go to Main Menu > Setup > Network > (refer to Fig 4-34). Please ensure that the “network” and “Sub-Stream” settings are correctly configured (refer to “4.6.1 Network Configuration”).
- **Step 2:** If using ADSL, please input the “Username” and “Password” and then click “OK”. If the DVR is connected to the ADSL it will show “connection succeeds”.
- **Step 3:** The remaining procedure, as detailed above, is exactly the same from Steps 3-5.

7.2 The remote live preview interface as below:

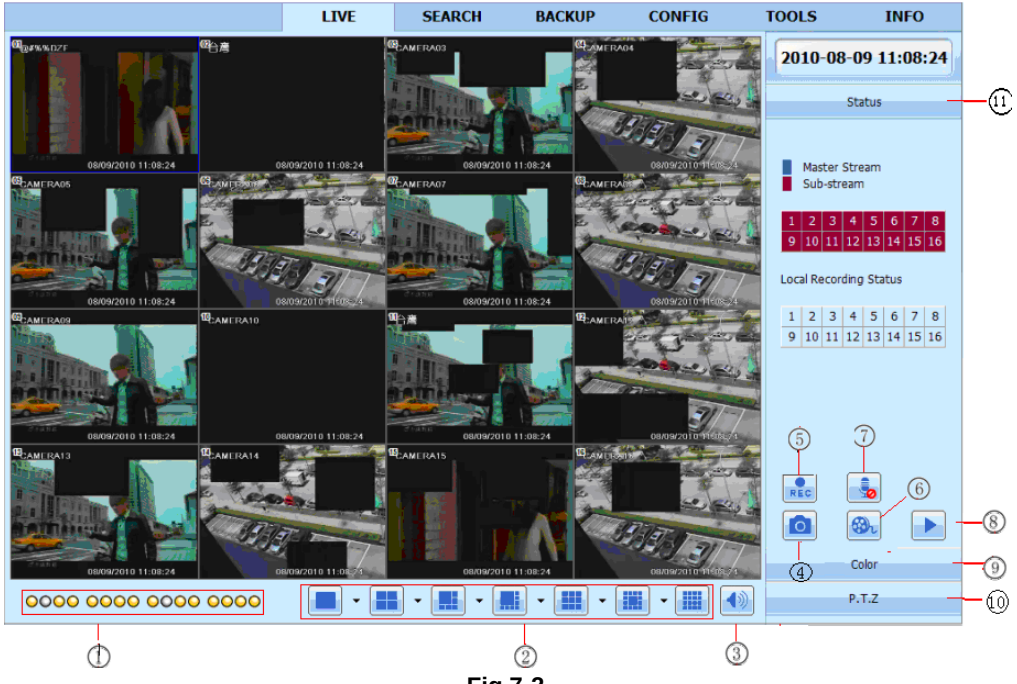


Fig 7-2

Symbol and function definitions:

①	Channel indicator	②	Screen display mode	③	Volume
④	Snapping picture	⑤	Start manual record	⑥	Start IE record
⑦	Bidirectional talk	⑧	Playback	⑨	Color
⑩	PTZ control	⑪	Master/sub stream status		

Note: Click the REC button to begin recording manually and the data will be saved directly on the PC's local hard disk.

Screen display mode:

Click the icon, beside the screen display mode, and a "Channel Select" window will pop-up (refer to Fig 7-3):

Fig 7-3

Users can select the desired channels to view by selecting the relevant check-boxes that corresponds to each available camera. For example, using an X8D1 8-channel DVR, the maximum number of channels that can be selected is 8. Click "OK" button to save any changes.

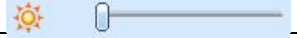
Taking Snap pictures:

Click the icon to take a snapshot and the image will be automatically saved on the users PC's local hard disk.

To configure the location for saving images go to: Remote Preview Main Interface > CONFIG > Local Config > Snap Path

Adjusting the color:

Drag the corresponding the slide bar to adjust the Brightness, Contrast, Hue, and Saturation. Click the "Default" button to reset them back to their original settings. For an explanation on the icons please view the table below:

Buttons	Description
	Drag the scroll bar to adjust the brightness of channel
	Drag the scroll bar to adjust the contrast of channel
	Drag the scroll bar to adjust the saturation of channel
	Drag the scroll bar to adjust the hue of channel
	Click this button to return to the default colour settings.
	Save

Controlling P.T.Z. Cameras

Please ensure that the speed dome is connected correctly to the DVR (via the RS485 connection) and the protocol of the speed

dome is supported by the DVR. Via the control toolbar, users can control the movement of the dome in various directions and also adjust the rotation speed, iris, zoom, focus, set presets, track etc.).

Buttons definitions:

Buttons	Description
	Dome rotates up. Dome rotates up left. Dome rotates up right Dome rotates down. Dome rotates left down. Dome rotates right down. Dome rotates left. Dome rotates right. Dome stops rotating.
	Drag the scroll bar to adjust rotating speed of the dome.
	'Iris' button. Click button near 'Iris' button to increase light of the dome. Click button near 'Iris' button to decrease light of the dome.
	'Zoom' button. Click button near 'Zoom' button to zoom in the locale picture of this camera. Click button near 'Zoom' button to zoom out the locale picture of this camera.
	'Focus' button. Click button near 'Focus' button to have long focus. Click button near 'Focus' button to have short focus.
	Go to the Preset
	Select and do auto cruise
	Track

	Auto scan

A right-click on the mouse, on the live interface page, a pull-down menu will appear (refer to Fig 7-4):

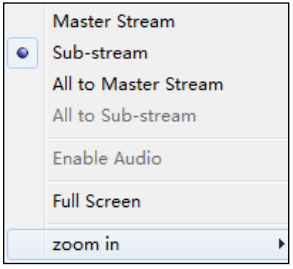


Fig 7-4

Menu definitions:

- **Stream:** This DVR supports either a master stream or a sub stream. Master stream produces a higher frame rate but consequently it requires higher network bandwidth (maximum 25 fps (PAL) / 30 fps (NTSC) per channel). The second stream produces a lower frame rate (max 6 fps (PAL) / 7 fps (NTSC) per channel) and therefore has a lower network bandwidth requirement. Therefore, users can select the stream according to their bandwidth.
- **All to master/sub stream:** Set all channels to Master-Stream/Sub-Stream.
- **Enable audio:** Enable/Disable audio
- **Full screen:** Select to display the live preview picture as a full screen (the tool bar will become hidden). Double-click the left mouse button or right mouse button to return to the original view.
- **Zoom in:** Left-click the mouse to select a channel. Right- click the mouse to bring up the menu (refer to Fig 7-4). Select

the “Zoom-In” option. Drag the cursor to scroll through the image. Repeat the procedure as above and select the “Zoom Out” option.

7.3 Remote playback & backup

7.3.1 Remote playback

Click the button to go to the “Playback” interface (refer to Fig 7-5). Select the desired file by Date, Channel Number and Time. Double-click the selected file name to playback the recording.

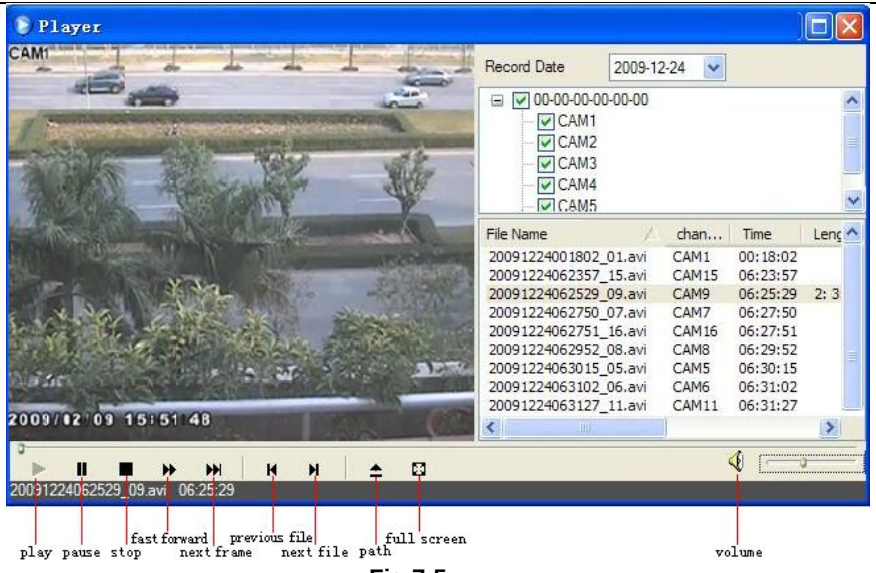


Fig 7-5

The remote interface also supports a Time Search, Event Search and File Management.

By Time Search:

- **Step 1:** Go to Remote Preview Main Interface > SEARCH > Time Search (refer to Fig 7-6):

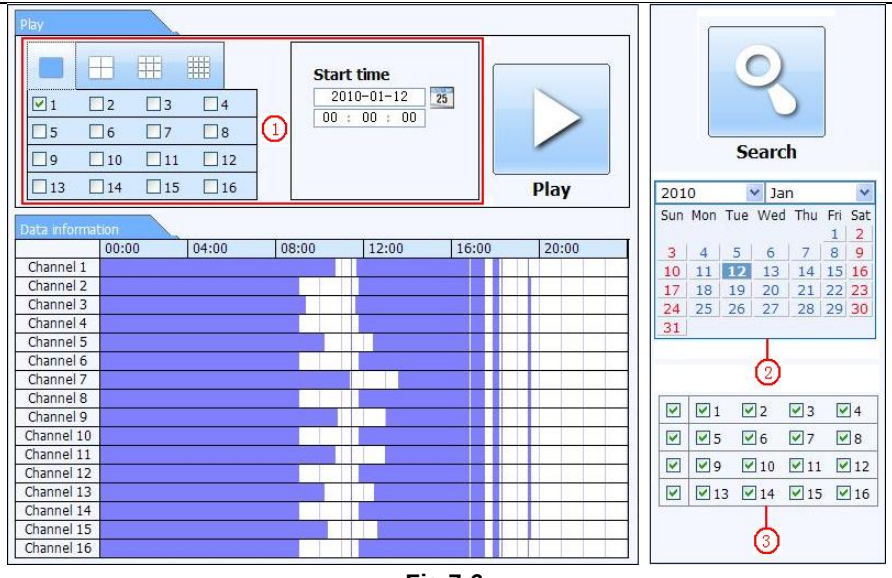


Fig 7-6

- **Step 2:** Select the search parameters by selecting the relevant dates from the date box ② or by channel box ③.
  Note: A highlighted blue box in the date box represents recorded data.
- **Step 3:** Click the "Search" button and the search results will be displayed as a list
- **Step 4:** In area ① the user can select the required time in the "Start Time" field and also choose the suitable display options

- **Step 5:** Select the item from the file list and then click the “play” button to play the file. The new playback window will appear (refer to Fig 7-7)
- **Step 6:** The user can then click the relevant buttons on the toolbar for various playback options (i.e. fast forward, rewind, pause etc.)

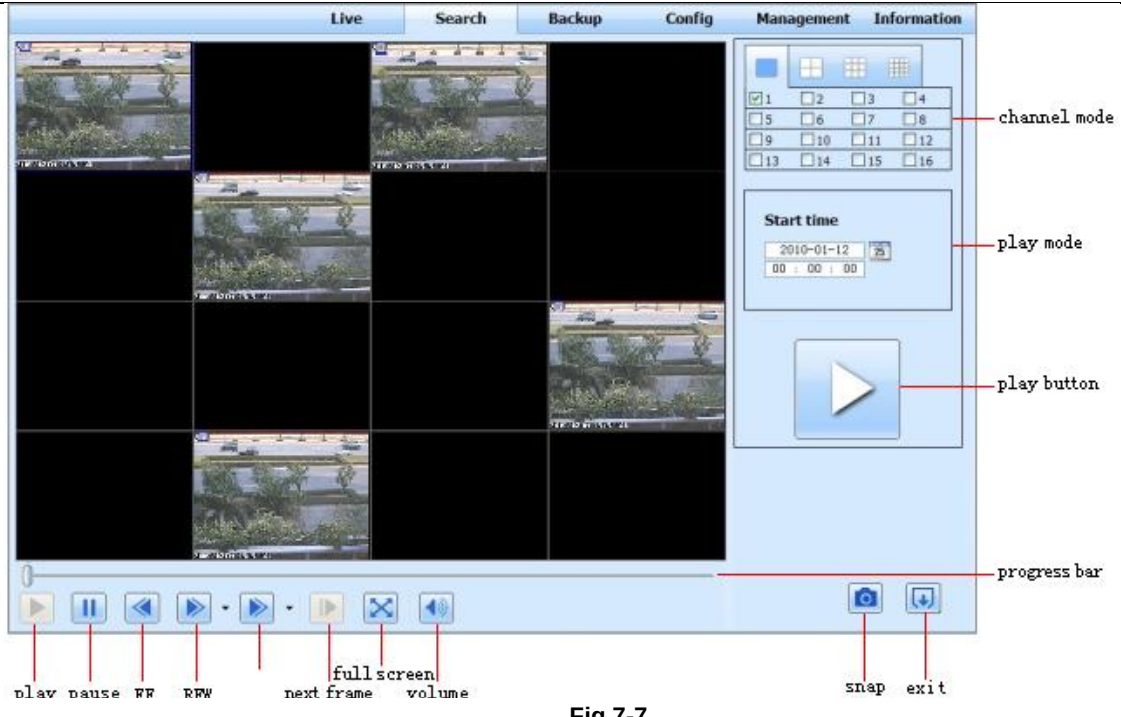

Live
Search
Backup
Config
Management
Information
channel mode
Start time
2010-01-12
00 : 00 : 00
play mode
play button
progress bar
play
pause
FF
RFW
next frame
full screen
volume
snap
exit

Fig 7-7

By Event Search:

- **Step 1:** Go to Remote Preview Main Interface > SEARCH > Event List (refer to Fig 7-8):

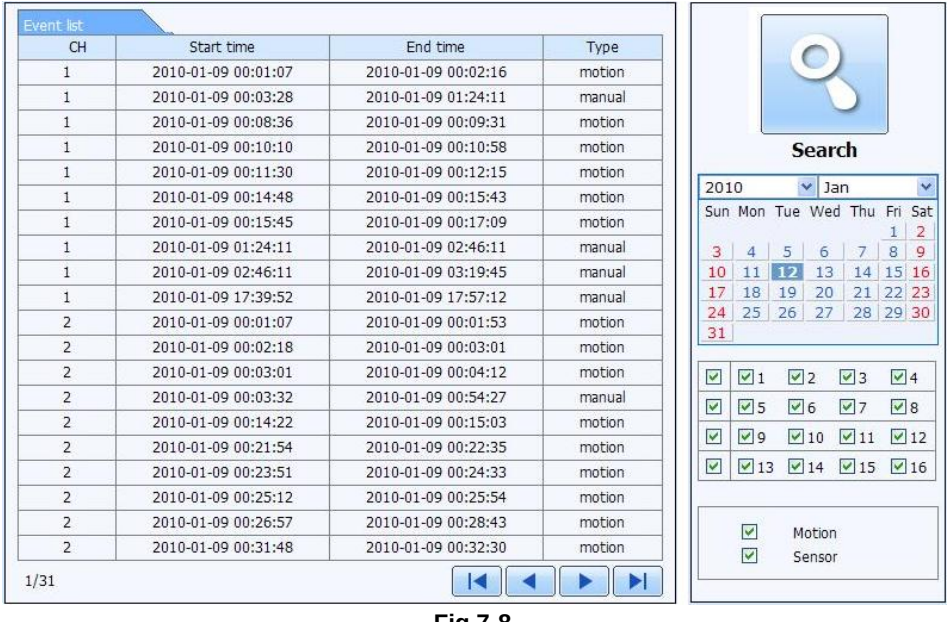


Fig 7-8

- **Step 2:** Select the search parameters by selecting the relevant date and channels from the corresponding check-boxes. Users can also narrow the search by selecting the “Motion” or “Sensor” options.
  Note: A highlighted blue box in the date box represents recorded data.
- **Step 3:** Click the “Search” button and the search results will be displayed as a list
- **Step 4:** Double-click the selected file to play the file

File Management:

- **Step 1:** Go to Remote Preview Main Interface > Search > File Management (refer to Fig 7-9)
- **Step 2:** Select the search parameters by selecting the relevant date and channels from the corresponding check-boxes
- **Step 3:** Click the “Search” button to start the search. The search results will be displayed as a list showing the Channel, Start Time, End Time and Status (motion type). The following options can then be applied when the relevant check- boxes are selected:
  - **Lock:** Click the “Lock” button to lock the file(s) (protects the file from being deleted or being re-written over).
  - **Unlock:** Click the “Unlock” button to unlock the file(s) from previous file protection settings.
  - **Delete:** Click the “Delete” button to remove an unlocked file.

Note: Select the “All” check-box to apply the “Lock/Unlock” or “Delete” options on all the files simultaneously.

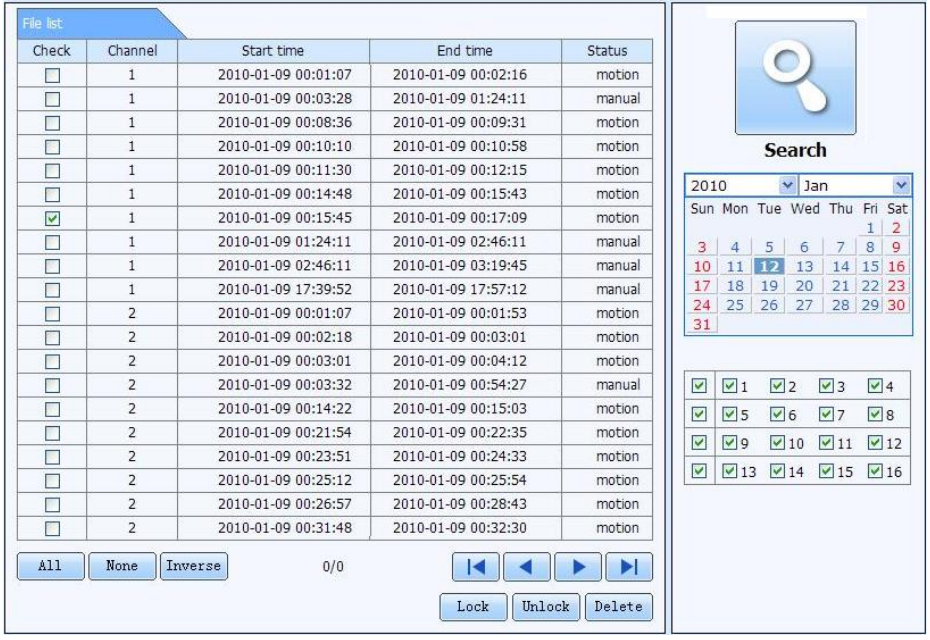

File list
Check
Channel
Start time
End time
Status
1 2010-01-09 00:01:07 2010-01-09 00:02:16 motion
1 2010-01-09 00:03:28 2010-01-09 01:24:11 manual
1 2010-01-09 00:08:36 2010-01-09 00:09:31 motion
1 2010-01-09 00:10:10 2010-01-09 00:10:58 motion
1 2010-01-09 00:11:30 2010-01-09 00:12:15 motion
1 2010-01-09 00:14:48 2010-01-09 00:15:43 motion
1 2010-01-09 00:15:45 2010-01-09 00:17:09 motion
1 2010-01-09 01:24:11 2010-01-09 02:46:11 manual
1 2010-01-09 02:46:11 2010-01-09 03:19:45 manual
1 2010-01-09 17:39:52 2010-01-09 17:57:12 manual
2 2010-01-09 00:01:07 2010-01-09 00:01:53 motion
2 2010-01-09 00:02:18 2010-01-09 00:03:01 motion
2 2010-01-09 00:03:01 2010-01-09 00:04:12 motion
2 2010-01-09 00:03:32 2010-01-09 00:54:27 manual
2 2010-01-09 00:14:22 2010-01-09 00:15:03 motion
2 2010-01-09 00:21:54 2010-01-09 00:22:35 motion
2 2010-01-09 00:23:51 2010-01-09 00:24:33 motion
2 2010-01-09 00:25:12 2010-01-09 00:25:54 motion
2 2010-01-09 00:26:57 2010-01-09 00:28:43 motion
2 2010-01-09 00:31:48 2010-01-09 00:32:30 motion
All
None
Inverse
0/0
Lock
Unlock
Delete
Search
2010
Jan
Sun Mon Tue Wed Thu Fri Sat
1 2
3 4 5 6 7 8 9
10 11 12 13 14 15 16
17 18 19 20 21 22 23
24 25 26 27 28 29 30
31
1 2 3 4
5 6 7 8
9 10 11 12
13 14 15 16

Fig 7-9

7.3.2 Remote backup

- **Step 1:** Go to Remote Preview Main Interface > BACKUP (refer to Fig 7-10)

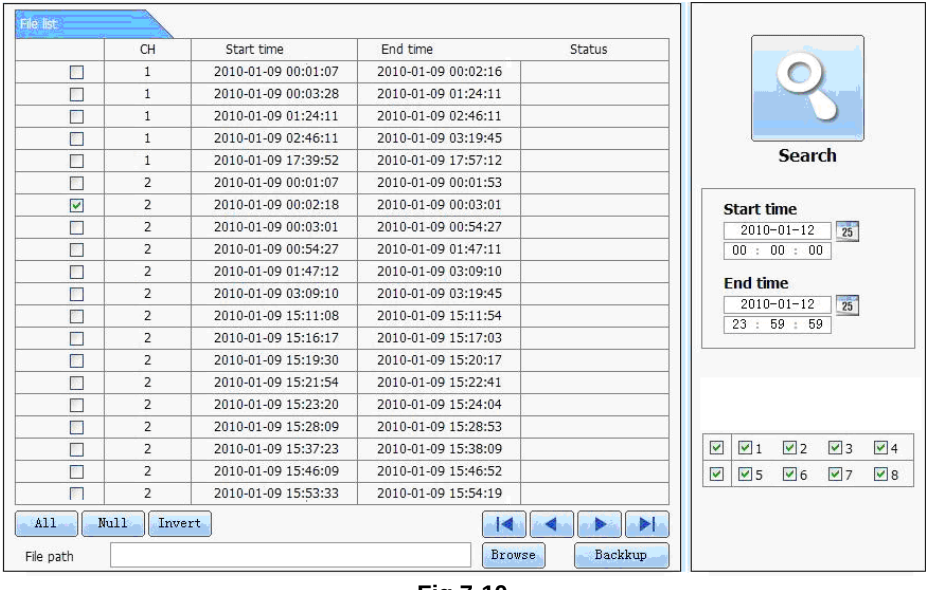


Fig 7-10

- **Step 2:** Select the search parameters by selecting the relevant date, from the “Start/End Time” fields and channels from the corresponding check-boxes
- **Step 3:** Click the “Search” button to start the search. The search results will be displayed as a list.
- **Step 4:** Select the relevant files to back-up by clicking the relevant check-boxes.
- **Step 5:** Click the “Browse” button to set location to save the file
- **Step 6:** Click the “Backup” button to start the backup. The backup files will then be saved at the chosen location on user’s PC.

7.4 Remote System configuration

Users can remotely setup the key parameters of the DVR and includes the following:

- Basic
- Live
- Record
- Schedule
- Alarm
- Network
- P.T.Z
- User

- **Step 1:** Go to Remote Preview Main Interface > CONFIG (refer to Fig 7-11)

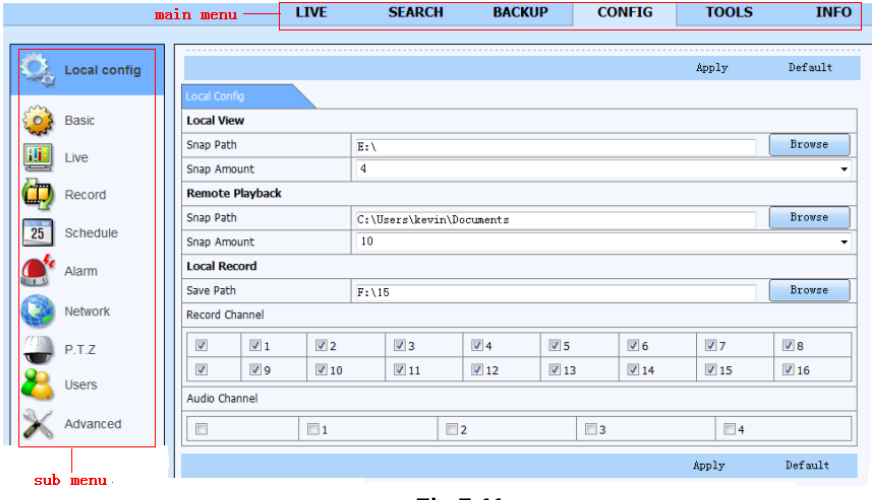


Fig 7-11

- **Step 2:** The sub-menu list and corresponding options are identical to accessing the DVR directly. Please refer to section 4 “Main Menu Setup Guide” for more details.
- **Step 3:** Click the “Apply” button to save any changes to the settings. Clicking the “Default” button will reset the DVR to the factory’s default settings.

7.5 Remote Management

Remote Information Search

The system will automatically record the use of the system by any of the users as a log. Users can view log information such as username, IP address etc.

- **Step 1:** Go to Remote Preview Main Interface > INFO > Log (refer to Fig 7-12)
- **Step 2:** Select the search parameters by selecting the relevant date, from the “Start/End Time” fields and Log Type from the corresponding check-boxes
- **Step 3:** Click the “Search” button to start the search. The log record will be then be displayed as a list.

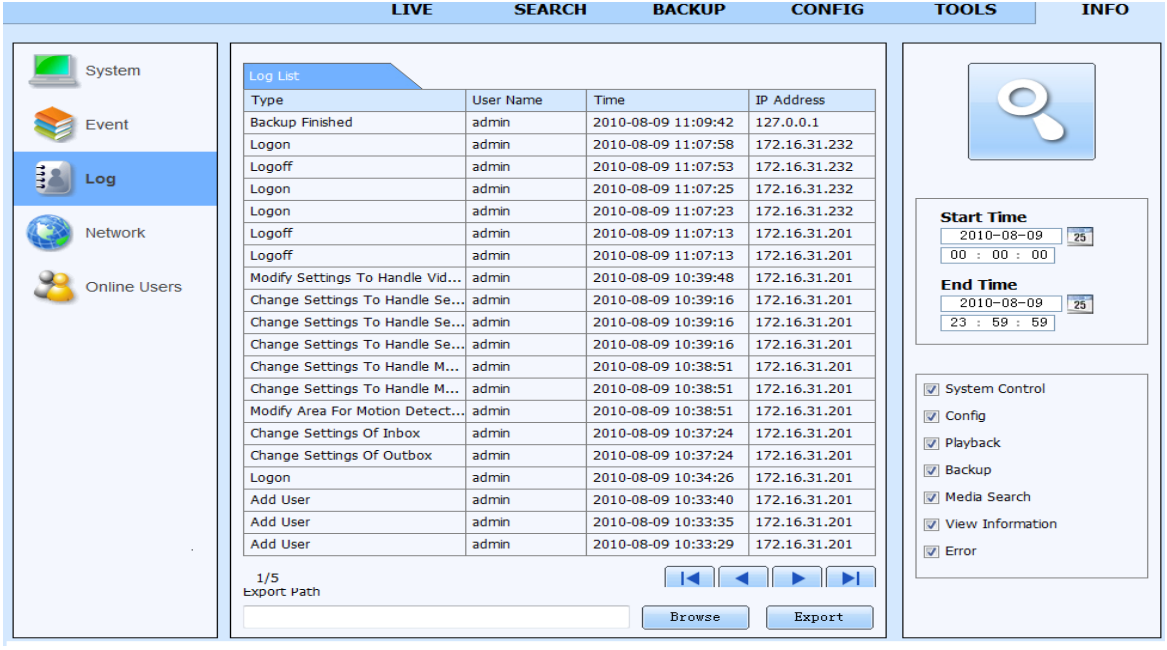

LIVE
SEARCH
BACKUP
CONFIG
TOOLS
INFO
System
Event
Log
Network
Online Users
Log List
Type
User Name
Time
IP Address
Backup Finished admin 2010-08-09 11:09:42 127.0.0.1
Logon admin 2010-08-09 11:07:58 172.16.31.232
Logoff admin 2010-08-09 11:07:53 172.16.31.232
Logon admin 2010-08-09 11:07:25 172.16.31.232
Logon admin 2010-08-09 11:07:23 172.16.31.232
Logoff admin 2010-08-09 11:07:13 172.16.31.201
Logoff admin 2010-08-09 11:07:13 172.16.31.201
Modify Settings To Handle Vid... admin 2010-08-09 10:39:48 172.16.31.201
Change Settings To Handle Se... admin 2010-08-09 10:39:16 172.16.31.201
Change Settings To Handle Se... admin 2010-08-09 10:39:16 172.16.31.201
Change Settings To Handle Se... admin 2010-08-09 10:39:16 172.16.31.201
Change Settings To Handle M... admin 2010-08-09 10:38:51 172.16.31.201
Change Settings To Handle M... admin 2010-08-09 10:38:51 172.16.31.201
Modify Area For Motion Detect... admin 2010-08-09 10:38:51 172.16.31.201
Change Settings Of Inbox admin 2010-08-09 10:37:24 172.16.31.201
Change Settings Of Outbox admin 2010-08-09 10:37:24 172.16.31.201
Logon admin 2010-08-09 10:34:26 172.16.31.201
Add User admin 2010-08-09 10:33:40 172.16.31.201
Add User admin 2010-08-09 10:33:35 172.16.31.201
Add User admin 2010-08-09 10:33:29 172.16.31.201
1/5
Export Path
Browse
Export
Start Time
2010-08-09
00 : 00 : 00
End Time
2010-08-09
23 : 59 : 59
System Control
Config
Playback
Backup
Media Search
View Information
Error

Fig 7-12

8 Mobile Surveillance

The DVR is designed to support mobile surveillance including live viewing over the 3G mobile networks and supports the following major smartphone platforms: Android, Blackberry, iOS (iPhone/iPad), Windows Mobile and Symbian (Nokia). To setup your phone for mobile surveillance the user must ensure that the DVR is correctly configured (refer section “4.6 Network Configuration”).

8.1 Phones with Windows Mobile

- **Step 1**: Firstly activate the network access on the mobile phone and then run “Internet Explorer”. Input the DVR’s IP address and the user will be forwarded to a setup page and will be prompted to download the “Pocket Cam” software (refer to Fig 8-1).

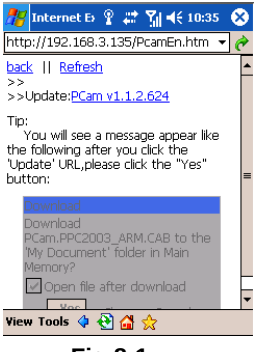

Internet Ex 10:35
http://192.168.3.135/PcamEn.htm
back || Refresh
>>
>>Update:PCam v1.1.2.624
Tip:
You will see a message appear like the following after you click the 'Update' URL,please click the "Yes" button:
Download
Download PCam.PPC2003_ARM.CAB to the 'My Document' folder in Main Memory?
Open file after download
View Tools

Fig 8-1

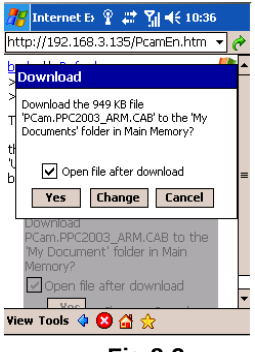


Fig 8-2

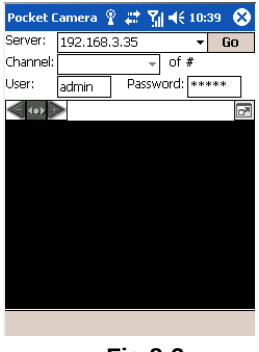


Fig 8-3

- **Step 2:** Click the button to download the software and a new dialog window will pop-up (refer to Fig 8-2)
- **Step 3:** Click the “Yes” button to start downloading and installing the software.
- **Step 4:** The “Pocket Cam” software will be open automatically after successful installation (refer to Fig 8-3)
- **Step 5**: Input the DVR’s IP address, Username (User) and Password in the relevant fields. Then click the “Go” button and successful connection will show a live image (refer to Fig 8-4)

  Note: *The login details are identical to those used for the DVR. The default Username/Password are “admin/123456”*
- **Step 6:** The user can then change the viewing channel from the drop-down menu labelled “Channel”

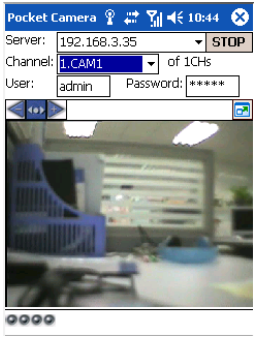


Fig 8-4

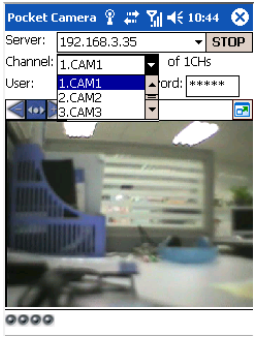


Fig 8-5

8.2 Phones with Symbian

The DVR supports the following Symbian versions:

Symbian S40	Supported
Symbian UIQ	Supported
Symbian S80	Supported
Symbian S60	Supported
Symbian S60 3rd Edition-Symbian OS v9.1	Supported
Symbian S60 3rd Edition with FP 1-Symbian OS v9.2	Supported
Symbian S60 3rd Edition with FP2-Symbian OS v9.3	Supported
Symbian S60 5th Edition-Symbian OS v9.4	Supported
Symbian S60 5.1 Edition-Symbian OS v9.5	Supported

- **Step 1:** Firstly enable the network access on the mobile phone and then run the web browser.
- **Step 2:** Input the DVR server's IP address into the browser and save the address as a bookmark. Click this bookmark to connect to the DVR (refer to Fig 8-6)
- **Step 3:** A welcome window will pop-up and click the link to download the software (refer to Fig 8-7)

Fig 8-6

Fig 8-7

- **Step 4:** After a successful download a security window will open up that will prompt the user to install the security software. Click “YES” to install the software.
- **Step 5**: After successful installation the user will then be prompted to download the software “SCam”.
- **Step 6:** Run the “Scam” program and it will open up into a menu page (refer to Fig 8-8)
- **Step 7:** Click the “System Settings” button and the user is taken to login page “Login Setting” (refer to Fig 8-9)

Fig 8-8

Fig 8-9

Fig 8-10

Fig 8-11

- **Step 9**: On returning to the main menu page enter the “Live View” and it will begin to connect to the DVR for live streaming (refer to Fig 8-10)

  Note: *The login details are identical to those used for the DVR. The default Username/Password are “admin/123456”.*
- **Step 10:** In the “Live View” interface users can take snapshots, change channels and control any P.T.Z cameras via the “Options” button (refer to Fig 8-11)

8.3 Phones with iOS (iPhone/iPad)

Installing via the iPhone/iPad

- **Step 1:** Open the “App Store” function of iPhone and search for the application “SuperCam_Pro” (refer to Fig 8-12)
- **Step 2:** Click the relevant link and then install the application by clicking the “free” and “install” buttons (refer to Fig 8-13).
- **Step 3:** The user will then be prompted to enter the iTunes password. Enter the password and click the “OK” button to complete the purchase (refer to Fig 8-14)
  Note: A user must have an account setup on the iTunes store before being able to purchase/install applications. Download the iTunes software and follow the corresponding instructions on setting up accounts.
- **Step 4:** Once the application has downloaded it will appear on the device as a “SuperCam” icon (refer to Fig 8-15)

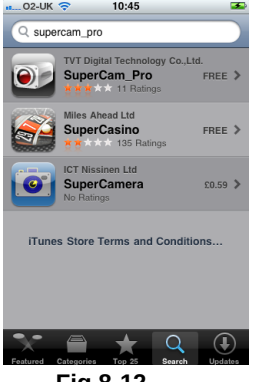


Fig 8-12

O2-UK
11:16
Search
Info
SuperCam_Pro
TVT Digital Technology Co.,...
11 Ratings
FREE
SuperCam is a professional mobile phone client software for digital video recorders and IP cameras in CCTV surveillance (compatible models only).
1.Support single,Multi-channel monitor switching.
2.Support PTZ control
3.Support channel video capture,record and record playback
4.Support channel audio
5.Support server list. No limit on the number of server list.
6.Support audio , shake alarm.
7.Support remoto server information query.
8.Support electronic zoom (fullscreen mode)
9.Support backup record files to Ablum on iPhone,then you can transport these files to PC by iTunes.
Featured
Categories
Top 25
Search
Updates

Fig 8-13

Fig 8-14

Fig 8-15

Installing via a PC:

Note: The user needs to have the software “iTunes” installed with an account setup before being able to proceed.

- **Step 1:** Open the “iTunes” software and connect the iPhone/iPad to the PC, ensuring that the program finds/recognizes the attached device.
- **Step 2:** Click the “iTunes Store” link and search for the application “SuperCam_Pro” (refer to Fig 8-16)

Fig 8-16

Fig 8-17

- **Step 3:** Click the relevant link and install the application by clicking the “Free App” button.
- **Step 4:** The user will then be prompted to enter the iTunes password. Enter the password and click the “OK” button to complete the free purchase (refer to Fig 8-17). Once the application has downloaded it will appear within the software’s “Apps” section
- **Step 5:** Then synchronize the device by clicking the “Sync” button with the relevant iTunes content

Note: Ensure “SuperCam” has been selected for synchronization via the device’s settings link within iTunes.

Using the Supercam Application within iOS:

- **Step 1:** Click the “SuperCam” icon to open the application. Enter the “Server” (DVR IP address), “User” (Username) and “Password” details and click the “login” button (refer to Fig 8-18).
  Note: Select the “Remember Server” checkbox to save the login details. Click the arrow icon within the server field to view previously saved details.
- **Step 2:** Once successfully connected to the DVR the user will be taken to the main menu page. (refer to Fig 8-19)

Fig 8-18

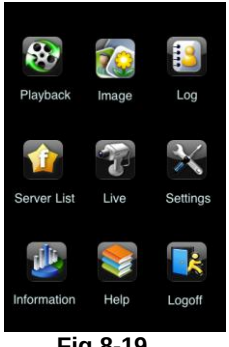


Fig 8-19

Fig 8-20

Fig 8-21

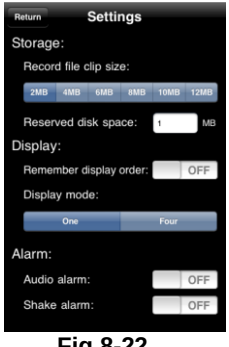


Fig 8-22

- **Step 3:** Click the “Live” icon to connect to the DVR for live viewing (refer to Fig 8-20)
- **Step 4:** Click the numbered icons to switch between the available channels within live-view (refer to Fig 8-20)
- **Step 5:** Click the “Help” icon on the main menu page to get a full description on the application’s functions including Playback, Recording, Snapshots and P.T.Z controls (refer to Fig 8-21).
- **Step 6:** Click the “Settings” icon to set the “Storage” (recording clip size), Display and Alarm options (refer to Fig 8-22).

8.4 Phones with Android

Installation via an Android Phone:

- **Step 1:** Open the Android “Market” Store and search for the application “SuperCam” (refer to Fig 8-23)
- **Step 2:** Click the relevant link, press the “Install” button and follow the corresponding instructions to download the application (refer to Fig 8-24)
  Note: Users can view the download and install process in the notifications page (refer to Fig 8-25)
- **Step 3:** Once the application has downloaded it will appear on the device as a “SuperCam” icon (refer to Fig 8-26)

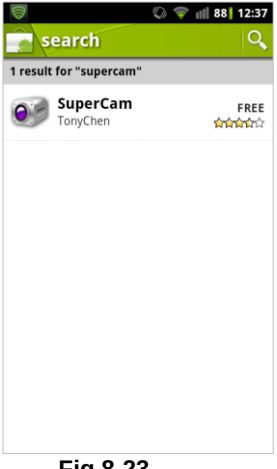


Fig 8-23

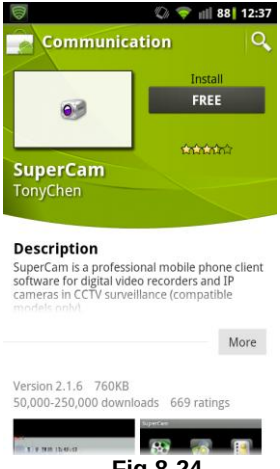


Fig 8-24

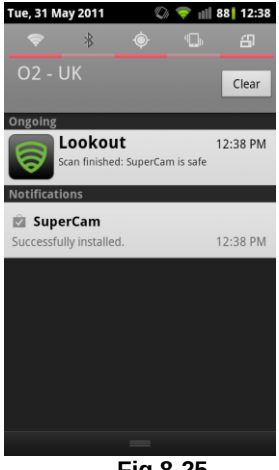


Fig 8-25

Fig 8-26

Using the Supercam Application within Android:

- **Step 1:** Click the “SuperCam” icon to open the application. Enter the “Server” (DVR IP address), “User” (Username) and “Password” details and click the “login” button (refer to Fig 8-27).
  Note: Select the “Remember Server” checkbox to save the login details. Click the arrow icon within the server field to view previously saved details.
- **Step 2:** Once successfully connected to the DVR the user will be taken to the main menu page. (refer to Fig 8-28)

Fig 8-27

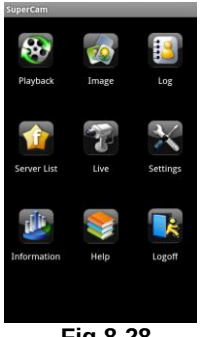


Fig 8-28

Fig 8-29

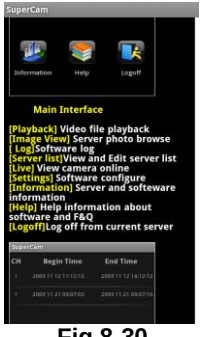


Fig 8-30

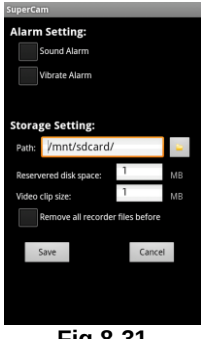


Fig 8-31

- **Step 3:** Click the “Live” icon to connect to the DVR for live viewing (refer to Fig 8-29)
- **Step 4:** Click the numbered icons to switch between the available channels within live-view (refer to Fig 8-29)
- **Step 5:** Click the “Help” icon on the main menu page to get a full description on the application’s functions including Playback, Recording, Snapshots and P.T.Z controls (refer to Fig 8-30).
- **Step 6:** Click the “Settings” icon to set the Alarm and “Storage” settings (refer to Fig 8-31).

8.5 Phones with Blackberry

Installation via a Blackberry Phone:

- **Step 1:** Open the Blackberry's web browser and enter the DVR's IP address into the address bar (refer Fig 8-32)
- **Step 2:** Click the "SuperCam" link to download the software (refer to Fig 8-33)

Fig 8-32

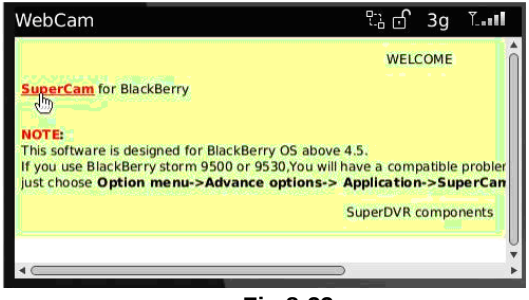

WebCam
3g
WELCOME
SuperCam for BlackBerry
NOTE:
This software is designed for BlackBerry OS above 4.5.
If you use BlackBerry storm 9500 or 9530,You will have a compatible probler
just choose Option menu->Advance options-> Application->SuperCan
SuperDVR components

Fig 8-33

- **Step 3:** Click the "Download" button on the popup interface (refer Fig 8-34) and the download progress will be shown (refer Fig 8-35).
- **Step 4:** When the software has finished downloading, it will be installed automatically (refer to Fig 8-36)

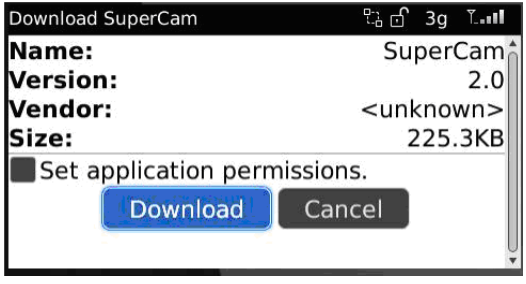


Fig 8-34

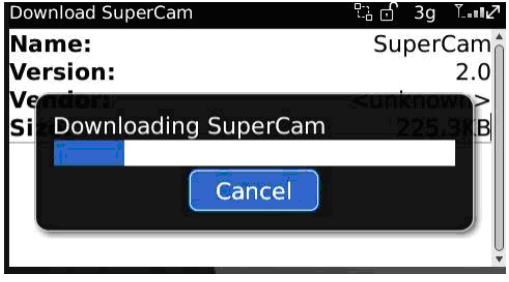


Fig 8-35

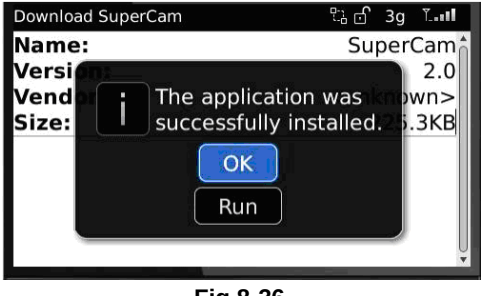


Fig 8-36

Note: If the software fails to download, please ensure:

- the phone has a sufficient network connection
- the DVR's network settings are correctly configured
- the phone's web browser is correctly configured.

Checking the Blackberry's web browser's configuration:

- Go to Menu > Option > Browser Configuration; (refer to Fig 8-37 for configuration settings)
- Go to Menu > Option > Cache Operations: Clear the browser's Web cache by pressing the "Clear" button (refer to Fig 8-38)

Fig 8-37

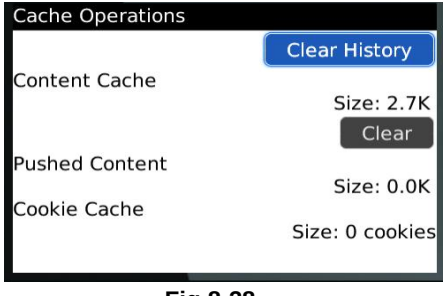


Fig 8-38

Note: There maybe compatibility issues with certain touchscreen versions of the Blackberry phones. Go to Options Menu > Advanced Options > Applications > SuperCam and click the "Disable Compatibility" button.

Using the Supercam Application within Blackberry:

- **Step 1:** Open the “SuperCam” icon to start the application. Enter the “Address” (DVR IP address), “Username” and “Password” details and click the “login” button (refer to Fig 8-39).
  Note: Select the “Remember Server” checkbox to save the login details. Click the arrow icon within the server field to view previously saved details.
- **Step 2:** Once successfully connected to the DVR the user will be taken to the main menu page. (refer to Fig 8-40)

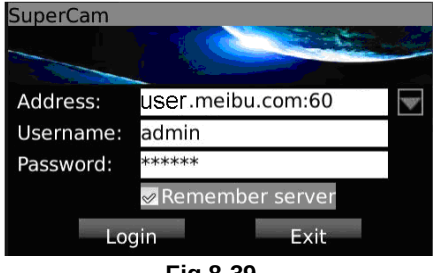


Fig 8-39

Fig 8-40

Fig 8-41

- **Step 3:** Click the “Live” icon to connect to the DVR for live viewing (refer to Fig 8-41)
- **Step 4:** Click the icon to switch between the available channels within live-view (refer to Fig 8-41)
- **Step 5:** Click the “Help” icon on the main menu page to get a full description on the application’s functions including Playback, Recording, Snapshots and P.T.Z controls (refer to Fig 8-40).
- **Step 6:** Click the “Settings” icon to set the Alarm and “Storage” settings (refer to Fig 8-31).
  Note: Users can click the Return button on the Blackberry phone to return to the previous interface.

Appendix A FAQ

Q1. DVR does not power up

- The power adapter may be faulty. Please try powering the DVR with a new power adapter.
- The power of the adapter may not provide sufficient power. Please check the DVR with a new power adapter.
- There is a problem with the DVR's hardware

Q2. There are no menu options or there is only a live image display

- Press and hold the ESC key and wait for a login dialog box to appear.

Q3. The DVR is powered (as indicated by the lights on the front panel) but I am not getting an image.

- The power of the adapter may not provide sufficient power. Please check the DVR with a new power adapter.
- The video output of the DVR is different from the display monitor
- There is a connection problem. Please recheck the cables are correctly connected.

Q4. Why images are not being displayed on parts or all of the channels of the DVR?

- There is a connection problem. Please check the cables between the DVR and cameras are correctly connected.
- There may be a camera problem. Please check the cameras for faults.
- The video format (PAL/NTSC) of the DVR is different from that of the cameras. Please change DVR's video system format.

Q5. The DVR cannot find a hard drive

- The power of the adapter may not provide sufficient power. Please check the DVR with a new power adapter.
- There is a connection problem. Please check the SATA power and data cables are correctly connected.
- The hard drive is damaged. Please install a new hard drive.

Q6. The DVR does not record

- The hard drive is not formatted
- The record function is not setup correctly. Please refer to section 5 “Recording Search & Playback and Backup”.
- The hard drive is full and the “Recycle” function is not enabled. Please refer to section 4.3 “Record Configuration” for more information. Either install a new hard drive or enable the “Recycle” function.
- The hard drive is damaged. Please install a new hard drive.

Q7. The mouse does not work

- Check the connection and wait a short while for the mouse to reconnect
- The mouse is not being detected. Plug and unplug the mouse several times.
- The mouse is incompatible. Please change the mouse.

Q8. Cannot download the ActiveX controls

- If Internet Explorer blocks the ActiveX controls, please follow the setup as detailed below:
  - Open Internet Explorer and go to: Tools > Internet Options (refer to Fig A-1)
  - Click Security (tab) > Custom Level (refer to Fig A-2)
  - Enable all the sub options under “ActiveX controls and plug-ins” (refer to Fig A-3)
  - Then click “OK” to finish the setup.

Note: Please ensure that the anti-virus software is not blocking the ActiveX controls.

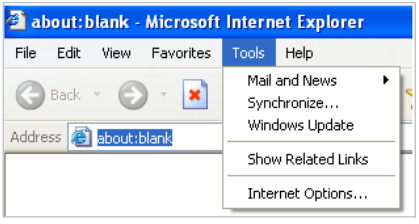


Fig A-1

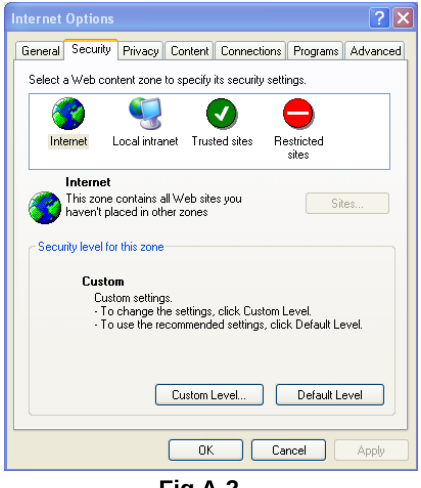


Fig A-2

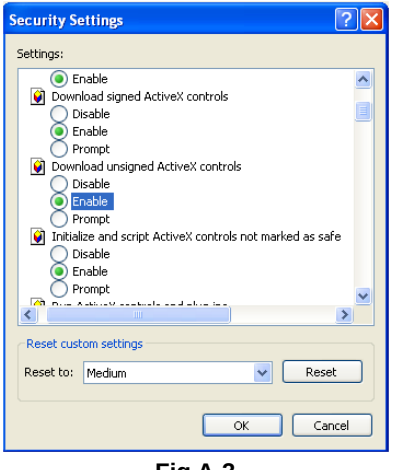


Fig A-3

Q9: The DVR is not booting up properly and displays "please wait…"

- There is a connection problem. Please check the SATA power and data cables are correctly connected.
- The hard drive is damaged. Please try to re-format the drive or install a new hard drive.

Q10: How to input password and digital numbers

- Use either the on-screen keyboard that will appear when you click an empty field or use the buttons on the front panel. Please note that the DVR's operation is much easier with the use of a USB mouse.

Q11: Why re-format a hard disk if it was used in an existing DVR of the same type.

- When the hard disk is removed from one to another same type DVR, it should work normally without re-formatting. However, when a new hard disk installed in the DVR, it will be identified as a new hard drive and will inquire whether to format regardless whether it has been used before or not.

Q13: What are the minimum PC configurations for remote viewing?

PC Module	Parameters
CPU	Intel Celeron 2.4G
Motherboard	Intel 845
HDD	80G
RAM	512M
VGA	NVIDIA GeForce MX440/FX5200 ATI RADEON 7500/X300
OS	Windows 2000(SP4 above) /Windows XP (SP2 above) /VISTA
DirectX	9.0

Q13: What are the minimum PC configurations for remote viewing (using the X16D1 DVR)?

PC Module	Parameters
CPU	Intel Core(TM) 2 Duo CPU E4600
Motherboard	G31/P31 chip
HDD	80G
RAM	1GB
VGA	GMA3100/NVIDIA GeForce 8400/ ATI RADEON HD3450
OS	Windows 2000(SP4 above) /Windows XP (SP2 above) VISTA
DirectX	9.0

Q14: Codec control issues when using Windows VISTA and Windows 7

There are 2 possible ways to fix this issue:

- Go to: Control Panel > User Account and Family Safety > User Account Control (refer to Fig A-5). Try switching the option both on/off by selecting the corresponding check-box.

- Right click the mouse whilst in Internet Explorer (refer to Fig A-6) and select the option “Run as administrator” from the menu.

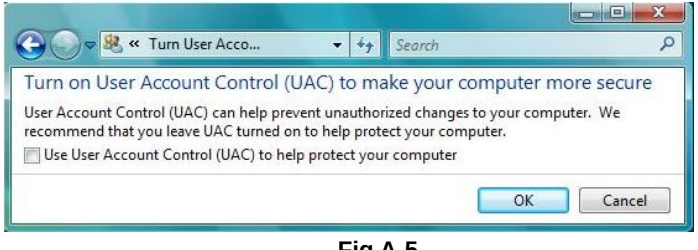

« Turn User Acco...
Search
Turn on User Account Control (UAC) to make your computer more secure
User Account Control (UAC) can help prevent unauthorized changes to your computer. We recommend that you leave UAC turned on to help protect your computer.
Use User Account Control (UAC) to help protect your computer
OK
Cancel

Fig A-5

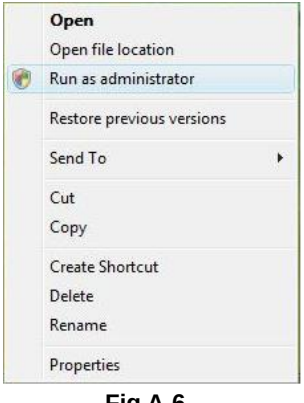


Fig A-6

Appendix B Calculate Recording Capacity

The table below shows an approximate hard disk size requirements based upon “Resolution” and “Bit Rate”:

Video Format	Resolution	Total Frame Rate (FPS)	Video Quality	Bit Rate (kbps)	Used Space (MB/h)
PAL	D1	25	Highest	2M	915
			Higher	1.5M	700
			Medium	1M	465
			Lower	768K	297
			Lowest	512K	241
NTSC	D1	30	Highest	2M	910
			Higher	1.5M	712
			Medium	1M	468
			Lower	768K	297
			Lowest	512K	241

The formula used for the calculating the recording capacity, is detailed below as follows:

[Used space per hour (MB/h)] * [HDD Coverage Rate] * [Recording Time (hours)] * [Number of Channels]

For example: PAL cameras, D1 resolution, “Higher” video quality, 25 fps, 4 channels and continuous recording for a month.

Total Recording capacity = [700 (mb/h)] * [24(hours/day) * 30(days)] * [4(channels)] = 2016000 (MB) [*approx 2 GB*]

Appendix C Compatible Devices

1. Compatible USB drives.

Brand	Capacity
SSK	512MB, 1G, 2GB
Netac	4GB
Kingston	2GB
Aigo	2GB
Smatter vider	1GB
SanDisk	4GB

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2. Compatible SATA CD/DVD writers.

Brand	Model
TECLAST	GH22NP20/TL-22XD
BENQ	DW220S-0K4
LITEON	DH—20A6S01C
LITEON	DH-20A4P02C
SAMSUNG	TS-H653B

Tab C-2

3. Compatible HDD list.

Seagate Barracuda LP ST3200542AS 2TB	Supported
Seagate Barracuda 7200.11 ST31500341AS 1.5T	Supported
Seagate SV35.3 ST31000340SV 1T	Supported
Seagate Pipeline HD.2 500G	Supported
Seagate Barracuda 7200.10 320G	Supported
Seagate Barracuda 7200.10 ST3250310AS 250G	Supported
Seagate Barracuda 7200.11 ST3160813AS 160G	Supported
Seagate Barracuda 7200.10 ST380815AS 80G	Supported
Maxtor Diamond max 21 STM3160215AS 160G	Supported
HITACHI Deskstar HDS721616PLA380 160G	Supported
HITACHI Deskstar 80G	Supported
WD WD1600JS 160G	Supported
Samsung HD161HJ 160G	Supported

Tab C-3

XPRH16 Specifications

Compression format	Standard H.264 Baseline
Video output	Composite：1.0V p-p/75Ω BNC×2, VGAX1, HDMI X1
Video Input	Composite：1.0V p-p/75Ω BNC×16
VGA Resolution	1280*1024 /1024*768/ 800*600
Record Resolution	704*576/352*288 (PAL), 704*480/352*240 (NTSC)
Display Frame Rate	400FPS (PAL), 480FPS (NTSC)
Record Frame Rate	400FPS (PAL), 480FPS (NTSC)
Audio Input	RCA X16
Audio output	RCA X1
Alarm Input	NO or NC 16CH
Alarm output:	4CH
Record Mode	Manual / Sensor /Timer / Motion detection
Simplex/Duplex/Triplex	Pentaplex
Network Interface	RJ45 (LAN, INTERNET)
PTZ control	YES
Communication interface	RS485, USB2.0 x 2(one for backup, another for USB mouse)
Disk info	SATA x 7+DVD-RW x 1 or SATA x 8
Remote controller	YES
Power Supply	110V-220V
Temperature	0℃-50℃
Humidity	10%-90%
Average Operating Power （Excluding HDD）	≤80W